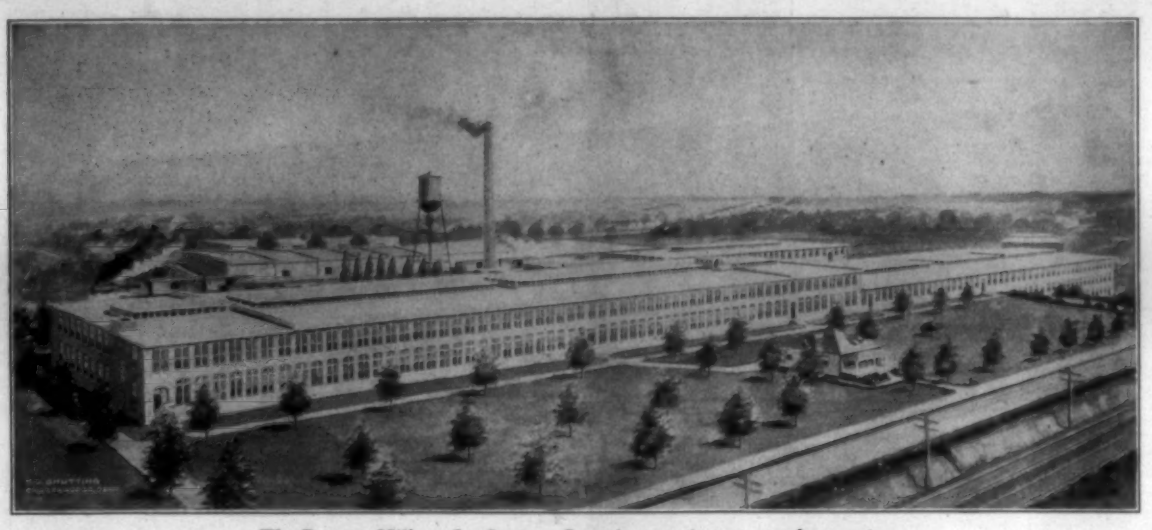
Better Equipment for Southern Mills

SOUTHERN TEXTILE BULLETIN

VOLUME 26 CHARLOTTE, N. C., THURSDAY, JUNE 26, 1924 NUMBER 17



The Dunson Mills at La Grange, Georgia, now in process of expansion

Dunson Doubling Production ~

AN enterprise that is forced to double its output, due to a constantly increasing demand for its products, may rightly be counted a success.

Such is the fortunate position of The Dunson Mills of La Grange, Georgia, makers of special ducks, osnaburgs, twills and drills for the manufacturing and converting trades.

Originally operating with 21,168 ring spindles, The Dunson Mills is now expending more than $1,000,000 in improvements. These improvements will include new brick and concrete buildings modernly equipped which will provide The Dunson Mills with 40,000 ring spindles, 10,000 twister spindles, 1,000 looms and other important special processes necessary for the manufacturing of their products.

This organization of Engineers was retained to plan and supervise the construction and equipment of the original plant as well as the recent expansion of The Dunson Mills.

The enormous and rapid growth of the Southern textile industry during the last two decades has called for our participation to a large extent in the vital problems of textile construction, equipment and production.

We shall be glad to place our practical experience of nearly a quarter century at your disposal and to confer with you on your plans for a new enterprise or for the sound expansion of an established business. Simply write for an appointment without obligation to you. You will also be interested in reading our new booklets, "Picks to the Minute," on the textile industry and "Factories for the Future."

J. E. SIRRINE & COMPANY

Engineers

Greenville South Carolina

SERVICE

Sellers BALL and SOCKET Hangers

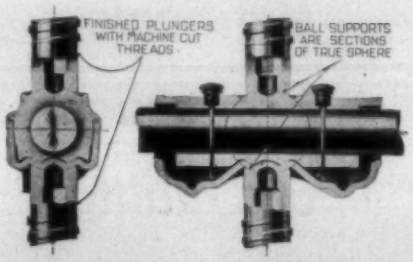
Permanence, Beauty, Strength
Above all EFFICIENCY

A hanger for the ceiling with support for the Box nearly EQUAL TO A CONCRETE PIER. Insures an unbroken oil film, light running shafting and twenty-four hours per day service without risk of heated bearings.

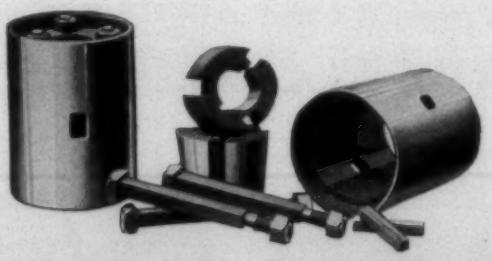
William Sellers & Co., Inc.

Main Office and Works: PHILADELPHIA
New England Office: BOSTON, MASS.

SOUTHERN STATES REPRESENTATIVE
A. G. NEW, GREENVILLE, S. C.

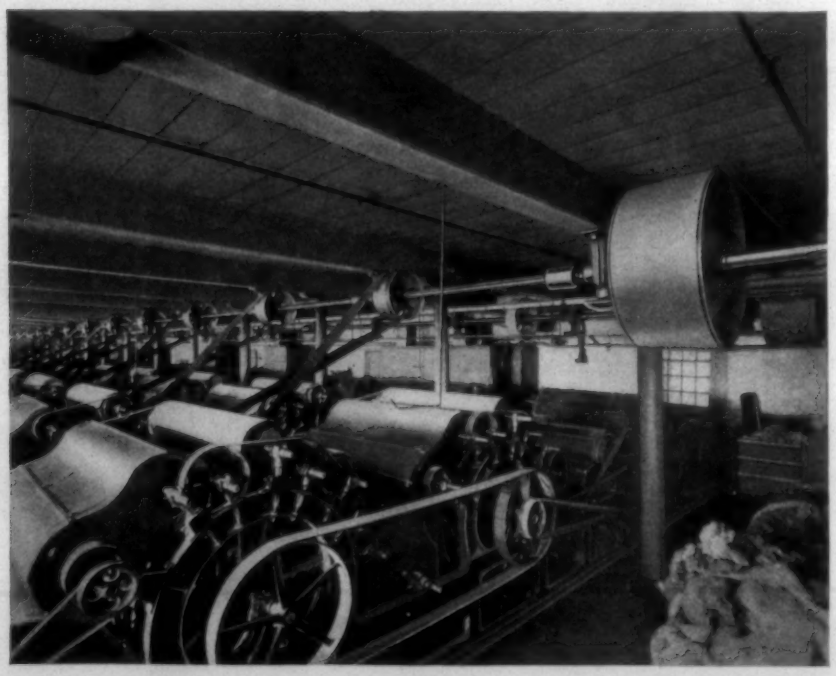


The diameter of the supporting plunger is equal to the diameter of the shaft.



"Sellers" Cone Vise Coupling

Equal to any, superior to most, most convenient of all. All parts shipped from stock, either straight or reducing.



This photograph was taken in a large textile plant in New Jersey. The Shafting was installed in 1863 by Sellers and is still in perfect condition. This is one of the earliest complete shafting equipments using Sellers Double Cone Vise Couplings. Name of owner furnished if requested.

SELLERS SERVICE

Machine Tools **Injectors**

Have You Adopted The Tape Drive?

Probably you have frequently weighed the advantages of constant spindle speed, as produced by the tape drive, against the disadvantage of variable spindle speed with resultant loss of twist and quality, as produced by the old method of band driven spindles—

—and resolved that some day you'd make this change from profit-eating, band driven spindles to the profit-making, modern tape drive.

Why not tackle the problem NOW? With production slack you'll have time now to take the question apart and study it from every angle—and the more you look into it the better you'll think of the tape drive.

Machinery manufacturers will welcome an opportunity to show you how you can increase the quality and quantity of your production and lower your costs by the use of tape-driven spinning. They can give you complete facts and figures showing how this change may be effected at your plant.

Every move you make NOW to speed production—raise your quality standards—and modernize your equipment will mean compound profits for your mill when the market demand for textiles swings back—**and it's coming soon.**

What better time could you ask for to look into this tape drive problem? Many mills have decided the question in favor of tape driven spindles and have seen a striking increase in production and quality in consequence.

Take a long, sober look at what it means in stoppage of profit leaks alone. Remember that in industry there is no standing still—**if you are not going ahead probably your competitor is going ahead of you.**

Ask the manufacturers of machinery for fresh information on the tape drive. Do it NOW!

Help Keep The South Leading in Big Scale Production of Quality Textiles

Better Equipment Campaign

This advertisement contributed to by the following firms:

Saco-Lowell Shops
Whitin Machine Works
H. & B. American Machine Co.
Fales & Jenks Machine Co.
Woonsocket Machine & Press Co.
Whitinsville Spinning Ring Co.
Crompton & Knowles Loom Works
Lestershire Spool & Mfg. Co.
The Stafford Co.

Easton & Burnham Machine Co.
Ashworth Bros., Inc.
Terrell Machine Co.
U. S. Bobbin & Shuttle Co.
Brown-St. Onge Co.
Mossberg Pressed Steel Corp.
S. K. F. Industries
John Hetherington & Sons, Ltd.
Textile Mill Supply Co.

Charlotte Mfg. Co.
Howard Bros. Mfg. Co.
B. S. Roy & Son Co.
Hopedale Mfg. Co.
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The Root Co.
R. I. Warp Stop Equipment Co.
Hyatt Roller Bearing Co.

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H. W. Butterworth & Sons Co.
Fafnir Bearing Co.
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Link-Belt Co.

SOUTHERN TEXTILE BULLETIN

PUBLISHED EVERY THURSDAY BY CLARK PUBLISHING COMPANY, 39-41 S. CHURCH STREET, CHARLOTTE, N. C. SUBSCRIPTION $2.00 PER YEAR IN ADVANCE. ENTERED AS SECOND CLASS MAIL MATTER MARCH 2, 1911, AT POSTOFFICE, CHARLOTTE, N. C., UNDER ACT OF CONGRESS, MAR. 3, 1879.

VOLUME 26 | CHARLOTTE, N. C., THURSDAY, JUNE 26, 1924 | NUMBER 17

Improvements in Ring Spinning Frames

By J. H. Windle, of Fales & Jenks Machine Co.

THE title of this article is inseparably connected with that of Fales & Jenks, the oldest builders in the world of this class of machinery, they naturally have been leaders in its improvements and development.

The Fales & Jenks Machine Company was established in 1830 and began the manufacture of Ring Spinning Frames in 1845 and of Ring Twisters in 1846. The first radical development from the two bearing type of spindle was perfected in our spindle department under F. J. Rabbeth in 1868, which was the first practical self contained or single rail twister spindle. In 1871 the first ring spinning spindle of single rail type was brought out by John Booth.

These single rail spindles resulted in the construction of the so-called box or ladder type of spindle rail in 1870. In 1878 the first of the modern top or Rabbeth type spindle was brought out as the result of a determined effort to produce a high speed spinning spindle.

The early Rabbeth spindle did not prove satisfactory for twisters, with the result that in 1881 Albert R. Sherman, then chief draftsman, invented the Sherman twister spindle, which was later redesigned for spinning. Today the Sherman type spindle is universally used in all foreign countries. From this point on the development of the spindle has kept pace with the requirements of the industry until at present time spindles for all sizes of ring frames and twisters are refinements of this early type.

With the development of the spindle came the growth and improvement of the machine itself. To meet the diversity of requirements particularly in the length of traverse we brought out in 1906 our patent fully adjustable boxed head frame whereby the spindle rails, cylinder and builder motion parts can be adjusted as a unit for any desired setting between the top of bobbin and the guide wires.

To further facilitate and simplify the erection of frames we applied at about the same time our patent adjustable foot with enclosed jack screw on all head ends, foot ends and center supports of neat design with no pockets or obstruction where waste can accumulate when sweeping.

The most important improvement on spinning frames in recent years was the tape driven spindle brought out by us in 1907 and has since been adopted as standard for both spinning and twister equipment, the even twist obtainable with tape driven spindles equipped with our patent sliding tension has made a remarkable increase in the former average breaking strength of yarns and resulted in greater production per spindle also increased production on all following processes, practically from looms equipped with automatic warp stop motions as the soft twisted ends in the warp, caused by slack spindle bands are now eliminated.

The Fales & Jenks new model ring spinning frames and ring twisters

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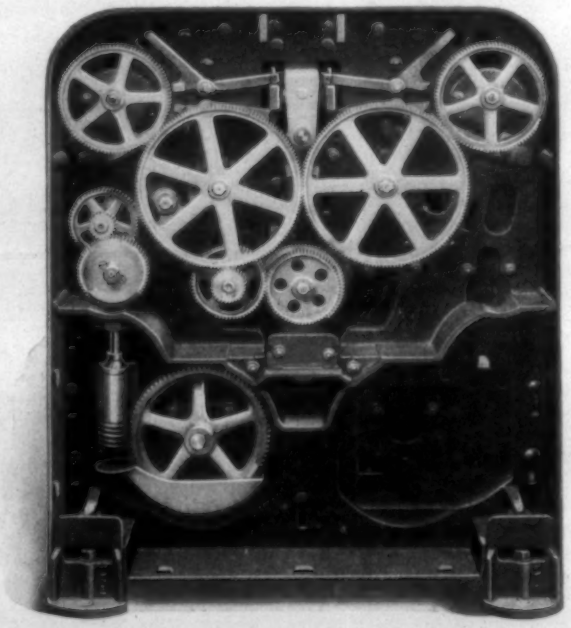
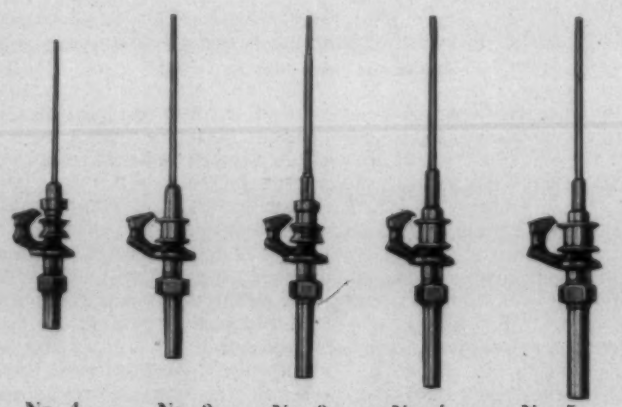


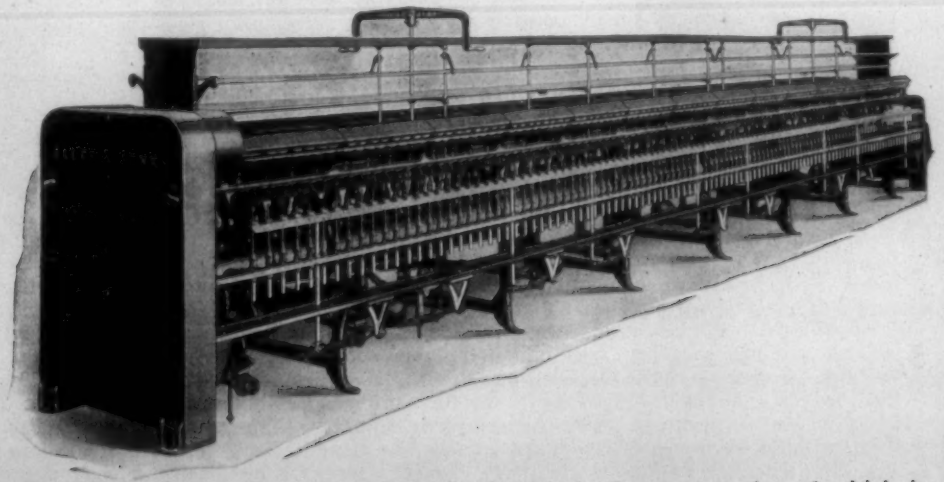
Fales & Jenks Spinning Frame Head End Gearing, showing the substantial construction, convenient arrangement of twist and lay change gears, door locking device, adjustable foot and cross rib separating the upper from the lower part.



No. 1 No. 2 No. 3 No. 4 No. 5

Fales & Jenks Spinning Spindles

No. 1—For fine counts, band whirl, cup bobbin drive.
No. 2—For medium fine counts, tape whirl, large taper bobbin drive.
No. 3—For medium count, band whirl, centrifugal clutch bobbin drive.
No. 4—For medium coarse counts, tape whirl, standard taper bobbin drive.
No. 5—For coarse counts, tape whirl, standard taper bobbin drive.



Fales & Jenks New Model Ring Spinning Frame, in the construction of which is incorporated the advancement made during 80 years of experience, specializing in the manufacture of ring spinning and twisting machinery.

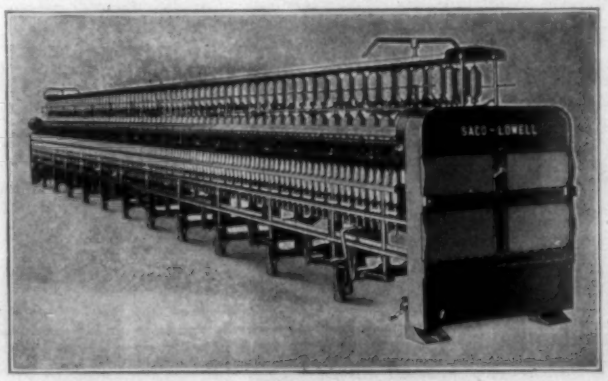
Modern Spinning Frame as Compared With the Old Frame

By a Representative of the Saco-Lowell Shops.

THE highest production consistent with quality at the lowest possible cost per pound is the goal of every cotton mill manager. We all know that the number of pounds any given number of spinning spindles will produce depends upon the speed of the front rolls, the number of ends down and the amount of time the frame is stopped for doffing, cleaning or repairing. To help the mill manager gain his goal of production, quality and low cost has been the ambition of all the textile machinery builders. From year to year improvements have been made which have given the mill manager with a modern spinning equipment a tremendous advantage over the mill manager who still has old models of spinning frames.

First of all, let us take the modern tape driven spindle as compared to the old band driven spindle. By means of an idler pulley the tape is kept at an even tension, regardless of weather or of the relative humidity of the spinning room. We know that no human being can tie on a hundred bands and have an equal tension on all of them. The writer has taken speeds of band driven spindles and found a variation of over one thousand revolutions per spindle. The writer recently took speeds of several tape driven spindles and found at the the theoretical spindle speed of 7,000 revolutions from the highest to the lowest the spindles did not vary over fifty revolutions per minute. This naturally means that the yarn from the spinning frame with a tape driven spindle will have a far more even twist and a better appearance. But the advantage of the almost constant speed of tape driven spindles does not end simply in the even and smooth twisted yarn. Unless you are making yarn where the twist is specifically specified, you can almost always reduce the amount of twist because on a frame with band driven spindles you put on a twist gear that suits the average spindle speed which is not the correct spindle speed. You know that when you reduce the twist in your yarn you necessarily increase the front roll speed and you know that an increased front roll speed means increased production.

Spinning frames with tape driven spindles are cheaper to operate than frames with band driven spindles. In checking up the cost of putting on bands on band driven spindles we have found a wide variation in various mills. We are taking, however, the most conservative reports that we have gotten. We have found that one man can put on bands, doing nothing else, on about 20,000 spindles. We have found that one man, doing nothing else, can easily take care of 50,000 spindles that are tape driven. Figuring a man's wages at $900 per year, this means a labor saving of 50,000 spindles, tape driven, as compared with 50,000 spindles, band driven, of $1,350 a year. Thirteen hundred and fifty dollars is the interest at six per cent on $22,500. Labor, of course, is always with us and every mill manager wants to eliminate fixed labor charges, if he possibly can, by putting in modern machinery. Many mill men have said that tape driven spindles require more power to drive than band driven spindles. It is true that tape driven spindles apparently use more horsepower, but this is easily understood when you put a speed indicator on the tape driven spindles and compare them with the speeds of band driven spindles. This indicator will show you that the increased power is necessary because your spindles are all running at the proper speed and with slack bands on band driven spindles the bands are slipping and you are not using the same amount of power. Your power with tape driven spindles will be constant and



Saco-Lowell Spinning Frame

with band driven spindles you will have a wide variation of power, because bands are continually breaking when tightening up. They vary according to the weather and they also vary according to the man who is putting on the bands. The result that you get, as spoken of above, with band driven spindles is a variation in twist that at times is almost insufferable. We have found in all of our experiments in comparing band driven spindles to tape driven spindles that the power variation was very nearly in proportion to the increased production.

The manufacturers of textile machinery when starting to manufacture for the first time tape driven spindles found that they had to revolutionize their methods of manufacture and to give more thought to accurately building a spindle than ever before. It was not a question of simply putting on a whirl that would take a tape instead of a whirl that would take a band. Higher spindle speeds have been used since the innovation of the tape driven spindle and this required a better built spindle. The developments in machinery tools, particularly in the grinders, have provided equipment for furnishing better balanced, more uniform spindles than could previously be made. Very elaborate and lengthy research has been made in steel for making spindles, resulting in a better material than could be purchased a few years since. Spindles are so rigidly inspected and the limits by which they are manufactured are so close that many spindles which now do not pass inspection are positively better than the best blades that could be turned out only a few years ago. While the principles of the manufacture of spindles have not changed, the methods of manufacture have undergone revolutionary changes and the resulting product is far nearer the theoretical idea of a perfect spindle than at any time during the manufacture of spinning frame spindles.

We cannot speak of simply the tape driven spindle without going into other improvements on the modern spinning frame, because along with the development of the tape driven spindle has come many improvements which make it possible for a modern spinning frame to outstrip the old frames.

In recent years the manufacturers building additions on new mills have specified frames of a wider gauge and, in some cases, have made the frames of such a width gauge that no separators would be required. We know that the speed of the spindle and the front roll are more or less in proportion to the ballooning of the yarn. With separators this yarn strikes the separator blade and this blow loosens the small cotton fibres and a yarn of less breaking strength is made, because you have shaken loose the natural convolutions of the cotton fibre, which up until that point were clinging together. Mills have found that by increasing the gauge of their frames, even though they still used separators, that the extra gauge gives them increased breaking strength and allows them to run their front rolls and spindles at a higher speed, thereby giving them increased production.

At the same time mills began ordering their new spinning frames with wider gauge, than their old frames, they began adopting the filling wind motion on their warp frames. This move, of course, was low because the textile machinery builders were slow in developing the proper spooler tension to handle the yarn wound like filling on the spooler. There has probably been no more forward step in cotton manufacturing than the adoption of filling wind for warp spinning frames. Those who have conducted experiments along these lines have found that the speed of the front roll can be materially increased after part of the spinning bobbin has been filled with yarn. Following this discovery, mills decided that if they had a short traverse like on their filling frame that there would be less ballooning and the front roll speed could be materially increased

From the figures that we have received from cotton mills that have replaced very old spinning frames with modern spinning frames, equipped with such improvements as we have spoken of above, we have found that, conservatively speaking, a modern frame can produce from ten to twelve per cent more than an old frame. For the textile machinery builders to have their frame stand this increased production not only made necessary the improvements as given above, but they made improvements in their rolls, in their rings, in the steadiness of the frame, which made the entire machine so built that it could stand a much higher speed than any mill ever requires. For instance, spindles are tested at a speed of 12,500 R.P.M. before leaving the plant.

Steel rolls have been improved materially. Until recently the use of a square-jointed steel roll was universal. Several years ago one of our largest manufacturers of textile machinery came out with a roll with a screw joint. This was tried out in a broad way before its universal adoption. It has now become standard for the front line bottom steel roll on a spinning frame, whether this roll be case hardened or not. In the case of the square jointed type of roll it was manifestly impossible that these could be made interchangeable, whereas the screw jointed roll can be so made. Several years of experimenting and demonstration have shown that the screw joint is far more durable than the square joint and that it will stand more abuse due to misalignment without failing in the joint. It is common practice among mills to replace a worn bearing in a roll with a new bearing, fitted into the old fluted portion on either side. To replace a bearing with no eccentricity is so difficult as to result in an eccentric run roll when this has been adopted. It was less expensive to replace a section of six or eight spindles than to replace the bearing alone. By the adoption of the screw jointed roll such a section may be readily inserted at no greater expense than the difficult process which the replacing of the bearing alone affords.

Developments in steel and also in the equipment have enabled the shops to furnish a very satisfactory roll, case hardened all over. These rolls are far more durable than the

(Continued on Page 33)

Whitin Spinning of Today vs. That of Yesterday

By a Representative of the Whitin Machine Works.

Q. What depreciation would you think should be figured on cotton mill machinery?

A. I would say that it had depreciated 100 per cent practically in 25 years.

Q. Would you say that it had depreciated 4 per cent every year?

A. I would think that the depreciation could be figured that way, although many think that it might be figured on an increasing percentage per year.

Q. Do you mean that machinery is of no value to a mill after being used 25 years?

A. No. I mean that it has no resale value except at junk prices after 25 years ordinarily. Of course, it could be run longer in its present location but not economically.

Q. I take it that a machine could be kept in good repair and be run more than 25 years.

A. Yes, but not economically.

Q. What then should you say caused the depreciation of 100 per cent in 25 years?

A. New improvements that have been and are continually being made to make the machines give greater production and better quality work with as little skill and attendance of the operative as possible.

Q. For instance, on spinning frames can you give us any dates of improvements with the advantages derived therefrom?

A. Yes. (See Table 1.)

Table 1.

With double rail spindle, say, up till 1890, at which date the gravity spindle was fully established.

No. Yarn	F. R. Speed
Filling Yarn.	
20's	111
30s'	96
40's	81
Warp Yarn.	
20's	89
30's	73
40's	66

With gravity spindle from 1890 till 1905 to 1910, at which date the wider gauge came in.

No. Yarn	F. R. Speed	% Inc.
Filling Yarn.		
20's	135	21%
30's	116	20%
40's	100	23%
Warp Yarn.		
20's	119	33%
30's	100	37%
40's	91	38%

With wider gauge and tape drive, as used at present, adopted from 1905 to 1910-1913.

No. Yarn	F. R. Speed	% Inc.
Filling Yarn.		
20's	150	11%
30's	136	17%
40's	122	22%
Warp Yarn.		
20's	134	12%
30's	116	16%
40's	106	16%

A. (Cont.) You will note that the frames installed from 1890 through 1905 to 1910 had been improved so much by the gravity spindle that there was an increase of probably 20 to 38 per cent in speed. Improvements made in wider gauge from 1905 to 1910 and in tape drive in 1913 caused further increases in speeds over the narrower gauges and band drive type of 11 to 22 per cent. Besides these advantages of increased speeds with the advent of the wider gauges and tape drive, the following advantages were also derived which greatly decreased labor costs and increased quality.

First: Longer frames were installed which meant a saving in floor space, saving in pulleys, belting and shafting, at the same time allowing for better light and less heat in the rooms and less countershafts, etc., to take care of.

Second: Wider gauge frames gave more room for the hands of the operatives to work around the frames. Consequently the work on such frames was more attractive to the help than on the narrower gauges. With the wider gauges, larger rings and longer traverses were obtained which meant larger productions and lower costs because in the next operation the packages would run longer without being doffer. Of course, when a doff is made you realize the machine has to be stopped. So the longer the machine runs without being doffed the greater is the efficiency of the machine.

With the wider gauges, separators were eliminated largely. On the narrower gauge frames with separators, the yarn constantly whips against the separators. With the wider gauge and no separators, the yarn does not whip against the separators and consequently is better and stronger.

Third: The tape drive helped the quality of the yarn because by it the spindles were driven at a more uniform speed which meant more constant twist, which in turn meant better yarn. Because on band drive frames the twist was not uniform, tape drive frames of equal gauge, etc., could often be run faster than under the old way, with better yarn being produced. Tape drive frames are not subject to as much stoppage as band drive frames, because the tapes are less susceptible to weather conditions than the bands. Consequently, spindles on tape driven frames will produce more because they will be running more of the time.

The above gives a graphic picture of some of the improvements of the well-known Whitin spinning frames of today, as compared with that of yesterday.

And today, we are building the best spinning frame that we have ever built—both as to design and construction. "Every day in every way" we are, by the simplicity of

(Continued on Page 33)

Advantages of Better Mill Equipment

Articles Submitted in Prize Competition On This Subject.

Number Fourteen

In regard to replacing old machinery with new equipment, I would like to mention a few things from a business standpoint. If you see a man trying to farm with a mule that is so poor and weak that it reels along ahead of the plow and on land so poor that you would have to fertilize it to make brick, what sort of an idea would you get of his farming? I would say it was pretty poor. If you go along the road and see a man plowing a mule so fat that she shakes when she walks and the land looks rich and well broken and the mule so proud that it can hardly touch the ground you can see prosperity shining in the road. If that last man hitched a pair of his good mules to a nice new wagon and went to town, every merchant would want to sell him goods whether he had any money or not, but what would they say to the man who had the poor mule. No, of course.

If you start to a lumber mill after a load of lumber and you can hear the engine knocking by the time you get within a quarter of a mile and about the time you got there the drive belt broke, you would think you would have to go some other place to get your lumber. I once knew a man who ran a saw mill like this and he was always behind in his orders and his pay days, too. This man had a brother who had made good in the lumber business and had sold out and he insisted on his brother coming in with him. Finally he told his brother he would take half interest in the business if he would sign a contract to let him run the mill for 12 months as he saw fit, without interference. They signed the contract on Wednesday and on Thursday morning he shut down the mill and told the hands to come back Monday morning. When they came back they started in taking off old belts and putting on new ones and replacing everything that was worn out.

The first brother began to grumble but the other one told him not to say anything else, because he was running the mill. So he started up and after he had run five weeks without having to stop he had sawed as much lumber as had previously been sawed in three months. The mill was not stopped half the time of repairs and business began to pick up and pay day came regularly.

In regard to the textile business I have had many years' experience in the mills. In the picker room, the old model pickers threw out a lot of cotton that should not have been thrown out and they opened the cotton any old way. The new ones have to be stopped before opening the hood and one man's hand frequently cost more than a new picker.

The old cares of 25 years ago would waste enough cotton in two years to pay for a new card, besides the loss in production, supplies and extra labor necessary to keep them up. Operating old drawing frames after the bearings are worn and there is much lost motion makes bad drawing and has a bad effect when marketing the goods, besides the loss of production.

Fly frames, when they are old enough to have vibration in the rollers will make lumpy roving and you will lose in production and also in selling your goods. The same thing applies in the spinning room.

Now, going to the weave room, suppose you have a loom 25 years old. Sixty yards in 10 hours is considered good production and six looms are a man's job. He must have 50 cents per cut in order to make three dollars per day. It would be considered poor if a new model loom did not produce 75 yards per day and on the new loom you get 1,350 for the same price. Taking the bad work and extra supplies, you can readily see that one man can do more on the new looms than four men can do on the old ones and the savings effected will pay for a new set of looms in two years.

Besides the new looms will keep you in the market with your cloth.

I have worked in mills for 15 years, most of the time putting up and keeping up new machinery. You can work in a new mill and see prosperity shining on the walls, but go into a mill 25 years old and you will say nothing doing. As for myself, I would not have a mill 25 years old if a man would give it to me and compel me to run it.

W. T. P.

Number Fifteen

The modern opening room should have room to open at least 24 bales of cotton at a time. A small amount should be taken from each bale and fed through vertical openers so as to give an even mixing. It should

(Continued on Page 34)

WHO'S WHO

AMONG

TEXTILE SALESMEN

W. M. KENDRICK.
(A. W. Harris Oil Co.)

W. M. Kendrick runs a farm but has to sell oil in order to keep the farm going.

W. M. KENDRICK.

He was born on a farm near Washington, Ga., on May 11, 1856, and is now living on a farm at Mayfield, Ga., but it is not probable that he does any agricultural work.

While it is a question whether he runs his farm or the farm runs him, he does own a farm and has his home there.

At twenty-two years of age he became tired splitting rails, cutting cord wood and plowing a mule and slipped away to a big city.

He landed in Augusta with 50 cents and got a job as a dry goods salesman. He made good as a salesman and acquired a splendid line of stories.

After about twelve years as dry goods salesman he struck oil by landing a job with the A. W. Harris Oil Company, of Providence, R. I., and still holds that position.

W. M. Kendrick is one of the most popular and highly regarded of the textile salesmen and is a regular attendant at textile conventions.

He is noted for his good humor and happy disposition and is rated as having a high quality of salesmanship.

MAX EINSTEIN.
(Standard Chemical Products Co.)

Max Einstein, Southern representative of the Standard Chemical

MAX EINSTEIN.

Products Company, of Hoboken, N. J., was born at Buchan, Germany, on February 8, 1894, and received his early technical training in Germany.

Max came to the South about eight years ago as salesman for the New Brunswick Chemical Company and through his courtesy and strict attention to business made many friends and developed a large business for that firm.

In 1922 he became connected with the Standard Chemical Products Company, of which he is manager and vice-president, and he successfully handles the entire South for them.

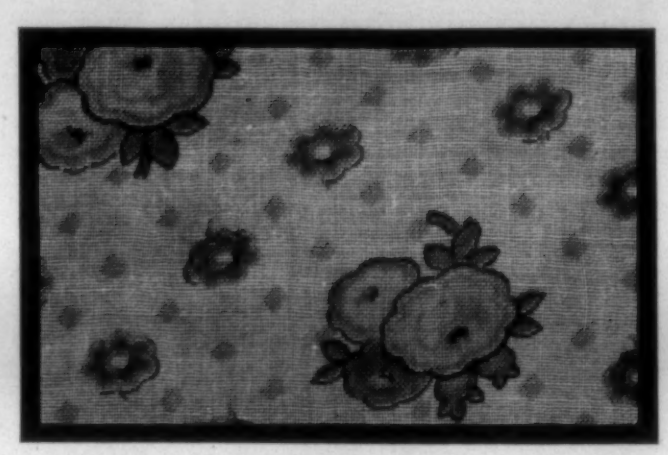
Few men who have traveled the textile industry of the South have been better informed on chemicals and sizings and a considerable portion of his business has resulted from his ability and willingness to render service to his customers.

Since coming to the South, Max Einstein has made Charlotte his headquarters. He is as yet a bachelor but has hopes.

He is at the present time on a visit to Europe and will spend the summer visiting relatives.

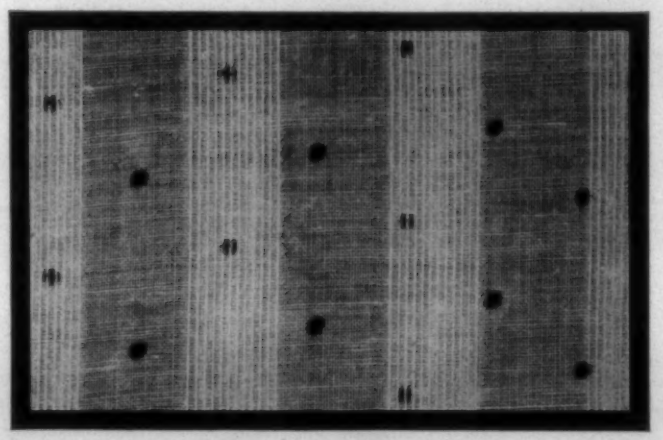
Imported Cotton Cloths

From Survey of United States Tariff Commission.



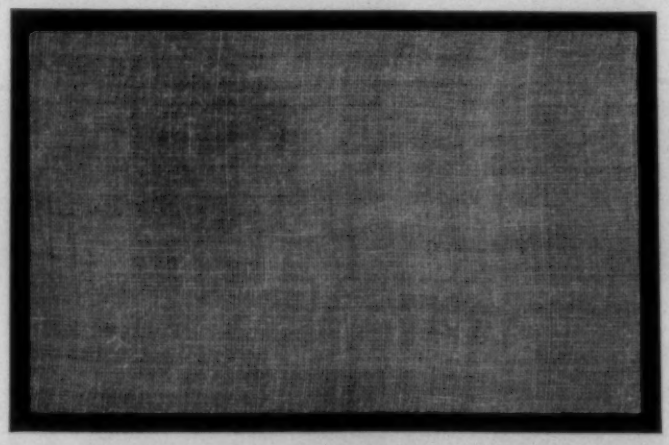
Sample No. 26.—Ply Voile.

Plain woven. Finished width, 39 inches.
68 ends and 58 picks per square inch, finished.
Warp yarn, 102/2, hard twisted. Filling yarn, 94/2, hard twisted.
Weight, 7.97 linear yards (8.64 square yards) per pound, finished.
Bleached, and printed (pink, green, light green, yellow, black, and lavender).



Sample No. 27.—Dimity.

Plain woven. Finished width, 28 inches.
91 ends and 75 picks per square inch, finished.
Warp yarn, 85s (warp cords are formed by 3 ends of regular warp). Filling yarn, 122s.
Weight, 17.15 linear yards (13.33 square yards) per pound, finished.
Bleached, and printed with violet dots.



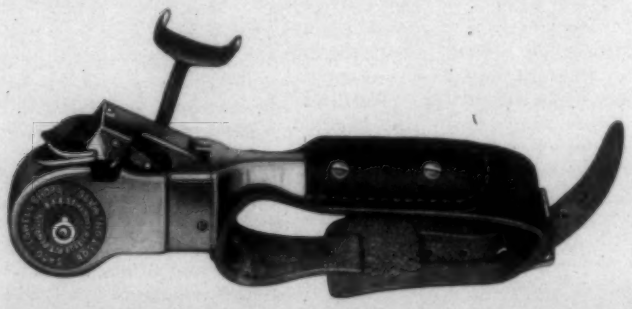
Sample No. 28.—Transparent Organdy.

Plain woven. Finished width, 44½ inches.
87 ends and 73 picks per square inch, finished.
Warp yarn, 86s. Filling yarn, 125s.
Weight, 11.24 linear yards (13.91 square yards) per pound, finished.
Piece-dyed pink. Permanent organdy finish.

Saco-Lowell Weavers Knot Tyer

By a Representative of the Saco-Lowell Shops.

THE problem of knots is one which has a close connection with both the quality of product and the reduction of cost. Knots are a necessary evil, and the cause of considerable trouble, both in process and in finished goods. The manufacturer constantly strives to reduce the number of knots as far as possible, and while improvements in machinery and increase in the size of packages help to keep the numbers down, there always are and always must be a great many knots in all yarn. It is highly desirable, therefore, to tie a knot that will give the minimum of trouble in running through the subsequent processes and while will have the least harmful effect upon the finished fabric. The weaver's knot fulfills these requirements, and is the best knot for use in almost all cases. The round knot or spooler's knot continued in such wide use only because a satisfactory hand weaver's knot tyer had not been devised. The development of the Saco-Lowell weaver's knot tyer fills a great need in the textile industry.



The actual advantages of the weaver's knot over the commonly used spooler's knot require but little discussion. A comparison between the spooler's knot and the weaver's knot shows clearly the superiority of the weaver's knot. The spooler's knot is many times the size of the weaver's knot, and its construction is such that the bulk of the knot is all on one side of the thread, from which it projects at a right angle, offering a serious obstruction when the yarn is passed through any narrow space such as a loom reed, or a knitting needle. The weaver's knot, on the other hand, is small and distributed about the thread so that the risk of its becoming jammed in a reed or needle and breaking a number of adjacent ends is reduced to a minimum.

The trouble caused by spooler's knots in knitting machines is so serious that it is practically universal in that industry to spool all yarn with a device for breaking out all the spoolers knots, the spooler tender then tying the ends with weaver's knots.

In weaving, a very considerable percentage of loom stoppages results from spooler's knots. Many of these stoppages may be eliminated by the use of weaver's knots, with a consequent increase in production. In the woven goods we still find great superiority in the weaver's knot, which being small and distributed about the yarn is more easily buried in the fabric, whereas the spooler's knot tends to come to the surface and cause an obvious defect in the cloth.

Naturally, this great superiority of the weaver's knot has caused numerous attempts to be made to devise a mechanical knot tyer which could be held in the operative's hand without interfering with her efficiency in other ways. The development after years of experiment by Saco-Lowell, of a successful hand knot tyer of this type gives to the mills a means of assuring themselves that their yarns contain nothing but perfect weaver's knots.

The advantages of mechanical knot tying over hand operation are numerous and definite. In the case of hand operation there is no guarantee that the operative is tying a weaver's knot, and only close inspection will detect the carelessly tied spooler's knot until it causes trouble, whereas with a Saco-Lowell weaver's knot tyer, it is impossible to tie any knot but a weaver's knot. Weaver's knots tied by hand almost invariably give a little when strain is put upon. If the operative is not extremely careful in tying the knot there are likely to be wide variations in the tension with which the knot is pulled up and also in the length of the tail which is left after the knot is tied. In both of the respects our mechanical knot tyer, by its construction, assures absolute uniformity. The expense of training an operative to tie weaver's knots is generally calculated to be several times the cost of a knot tyer, and, when the training is accomplished, the results are inferior to the mechanically tied knot, and there is no assurance that the operative is not actually tying considerable number of spooler's knots.

The Saco-Lowell weaver's knot tyer sets a high standard of construction and finish for instruments of the sort. The illustration (¾ actual size) shows the high degree of development of the design. The housing, which is an aluminum alloy die casting, is a strong, rigid and light frame for the working parts, which it shields thoroughly from dirt and lin,t as well as from damage caused by rough treatment. The thumb lever is a manganese bronze die casting of extremely high tensile strength. All parts which are subjected to wear are hardened steel, ground after hardening to in-non-case hardened, and maintain

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Gossett Says Retailer To Blame

HIGH price of raw cotton has nothing to do with the stagnation in the cotton goods market, according to B. B. Gossett, of Charlotte, N. C. The chief cause of the slow movement, Mr. Gossett says, is the attitude of the retailer in demanding prices out of all proportion to the original cost of the articles.

Mr. Gossett is president of the Chadwick-Hoskins Mills of this city. He is also president of the Riverside Mills at Anderson, S. C., and is identified with other mills in South Carolina. He is also president of the Southern Yarn Spinners' Association.

His comments on the situation were brought out by a request for an interview based on an article in a recent issue of the Literary Digest. He made the following statement:

"In the Literary Digest of June 7 appears an article under the caption: 'Hard Times in the Cotton Mills.' This article is predicated almost altogether on the assumption that the present distress is due to the high price of cotton. Nothing could be further from the facts. The real reasons are perfectly manifest to anyone who has been a close student of the situation. It is true there is practically no export demand for American goods, but it is idle to say we cannot meet foreign competition because of high priced cotton.

"The foreign mills are paying just as high prices for cotton as the American mills. Indeed, on account of the reduced value of their currencies, the foreign mills are actually paying higher prices for the raw materials than the American mills. It will therefore be necessary to look in some other direction for the reason for the slack demand for American goods for export.

"Also it may not be amiss to point out that despite the existing high price of cotton the total number of bales shipped to export to date this season is in excess of any previous season since the war except 1920.

Effect of High Wages.

"The real reason we find ourselves unable to sell goods for export is on account of the relatively high wages paid the American mill workers, not mentioning the increased overhead of the American mills as contrasted with the foreign mills. But after all the principal reasons for the present situation in textiles is due to domestic causes, some of which are as follows:

"First and primary reason is the attitude of the retailer in demanding prices out of all proportion to the original cost of the articles, including cost of conversion, distributors' profits and all taken into consideration. The ultimate consumer either pays the prohibitive price or else goes without.

"The difference between the mill cost and consumer is entirely too great and seems to be constantly spreading. In looking up some statistics the other day I was surprised to find that print cloth prices are identically the same as in January, 1922, when cotton was less than 19 cents a pound, as contrasted with a price today of about 30 cents. Meanwhile retail prices in most instances are being mantained at the levels of 1919-1920.

Reduced Purchasing Power.

"One of the contributing causes is undoubtedly the reduced purchasing power of the ultimate consumer on account of strained finances incident to meeting installments on automobiles purchased last year on the installment plan. It will be recalled that the year 1923 was a banner year in the automobile business and literally hundreds of thousands of cars were sold on easy terms.

"In an effort to maintain these cars and meet the installments many people at this time are actually being forced to deny themselves the necessities of life, especially clothing, including cotton goods of all kinds. In this connection it should be emphasized that if the attitude of the retailer was different and he would reduce his prices to a reasonable basis it is altogether probable that the ultimate consumer would be able to increase the amount of his purchases despite the handicap under which he is working, as above indicated.

Sales on 20-Cent Cotton Basis.

"As further evidence that the high price of cotton has but little if anything to do with the present situation it is only necessary to point out that the cotton goods and cotton yarn markets are now absolutely stagnant, although staple goods and yarns are selling on a basis of 20-cent cotton.

"It should also be emphasized that an advance of 10 cents a pound in cotton at the mill, speaking generally, means an advance of only from 1 cent to 3 cents a yard on goods. Such a small advance, if properly and fairly reflected in the price of cotton goods or cotton garments over the retail counter, would mean such a small increase that it would hardly be noticed by the consumer.

"The trouble is that the great department stores in the large cities and many retailers elsewhere nearly always take advantage of every big advance in the price of cotton to mark up the price of cotton goods unreasonably. The attitude of the retailer under such conditions is past understanding. His present policy is not only near-sighted but it is stupid. Apparently he fails to realize that by disposing of his goods at fair prices the resultant increase in volume would ultimately net him a larger profit than is possible as long as he tries to maintain war-time prices.

Manufacturers' Part.

"Likewise, the failure of the manufacturer to accommodate himself to existing conditions is a grave mistake. An effort on his part to force 90 to 100 per cent production on a 60 per cent market will, if persisted in, inevitably lead to disaster. The only cure for the present situation is for the manufacturer to cut his garment to fit the cloth, and this, of course, means curtailment of the most drastic kind.

"A reduction in output is the only possible panacea for the ills of the manufacturer and, happily, he is

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Tariff Board Reports on Textile Depression

ANSWERING the eight questions asked in Senator Walsh's resolution, passed by the Senate last month, the U. S. Tariff Commission has completed a detailed report as called for by that resolution. Declaring that the present depression in the cotton manufacturing industry is world wide, the report analyzes foreign trade in cotton cloths over a period of years and states that imports of cotton cloth are due primarily to the quality of certain grades rather than to general price competition. It estimates that imports of coarse and medium cloths now constitute about 1 per cent of the domestic production of such cloths, and imports of fine cloth about 10 per cent of the domestic production.

Answering question No. 1, "Is the present depression in the cotton manufacturing industry confined to the United States or is it world wide?" the commission summarizes conditions in a number of different countries to support the contention that it is world-wide although more severe in some countries than in others.

Answering question No. 2, "To what extent and for how long a period has the present depression in the cotton manufacturing industry of this country been apparent?" the report states that it has been noticeable for about 11 months, from July, 1923, to May, 1924, inclusive. It supports this statement by a number of tables showing production and price indices for cotton manufactures.

Answer to questions Nos. 3 to 8 inclusive are published practically in full herewith. There are, however, certain explanatory tables which accompanied the report but which are not presented in these columns. The report follows:

III. What is the quantity and value of cotton cloth imported into and exported from the United States under the present tariff act as compared with those under the act of 1909?

The total quantity and value of countable cotton cloths (which are the only kinds to which the resolution is understood to relate) imported and exported under the act of 1922, and under preceding acts, have been as follows:

Countable Cotton Cloths—Totals by Tariff Acts.

Tariff Acts	Imports for Consumption Sq. Yds.	Imports for Consumption Dollars.	Domestic Exports Linear Yds.	Domestic Exports Dollars.
Act of 1890 (1,422 days)	138,000,131	17,700,971	692,327,427	443,490,967
Act of 1894 (1,062 days)	128,460,567	13,303,496	714,862,821	40,041,716
Act of 1897 (4,394 days)	719,356,561	107,076,077	4,842,885,875	272,569,864
Act of 1909 (1,520 days)	211,151,294	34,165,180	1,659,366,021	112,214,391
Act of 1913 (3,275 days)	687,466,248	188,372,194	5,443,867,022	857,046,365
Act of 1922* (557 days)	294,900,445	64,990,053	† 690,194,071	117,027,995

Reducing the above to a uniform basis, the year of 365 days, there is obtained the following contrast:

Countable Cotton Cloths—Average Per Year of 365 Days.

Annual Averages	Imports for Consumption Sq. Yds.	Imports for Consumption Dollars.	Domestic Exports Linear Yds.	Domestic Exports Dollars.
Act of 1890	35,421,975	4,543,598	177,707,110	11,163,293
Act of 1894	44,150,760	5,259,676	245,692,024	13,761,983
Act of 1897	59,755,381	8,894,576	402,287,971	22,641,784
Act of 1909	50,704,094	8,204,139	398,466,183	26,946,219
Act of 1913	76,618,376	20,994,153	606,721,057	95,518,144
Act of 1922*	193,247,150	42,587,737	† 452,281,573	76,688,004

(*For period from Sept. 22, 1922, to March 31, 1924, inclusive, for which data are available. †Square yards.)

The figures for the five tariff acts prior to the act of 1922 show that the general tendency has been for the foreign trade, both export and import, of the United States in countable cotton cloths to increase. Under each of these successive tariff acts, the rate of increase has been more marked in exports than in imports. Under the act of 1922 the increase in imports has been accentuated whereas there has occurred a decrease in exports; this act, however, has been in operation not much over a year and a half. It is, therefore, too early to state that this marks a permanent reversal of the condition of a continually widening margin of exports over imports which is shown by the figures for the five preceding acts.

Production and Foreign Trade.

IV. What is the percentage of imports and exports, as compared to the domestic production, of cotton cloth in the census years 1909, 1914, 1919, 1921, and 1923?

The data are as follows:

Countable Cotton Cloths—Relation of Imports and Exports to Production.

Year	Quantity: Volume of Production Sq. Yds.	Quantity: Relation of Imports to Production Pct.	Quantity: Relation of Exports to Production Pct.	Value: Volume of Production Dollars	Value: Relation of Imports to Production Pct.	Value: Relation of Exports to Production Pct.
1889	3,003,012,007	1.05	3.55	191,933,218	2.09	4.41
1899	4,430,932,327	1.22	8.36	230,015,368	3.00	8.25
1904	4,935,561,905	1.02	4.51	300,094,149	2.68	4.90
1909	6,121,311,718	1.13	5.41	424,578,252	2.47	5.11
1914	6,569,118,359	0.89	5.68	456,522,694	2.52	6.32
1919	5,683,359,767	0.84	10.82	1,128,819,078	1.32	13.47
1921	6,097,721,645	1.84	8.14	707,486,207	4.77	10.12

Production data for 1923 is not available. The Bureau of Census states that the compilation of production data for 1923 has not been completed. For this reason production and import and export percentages are not given for 1923 in the foregoing table. Using the latest production figures, those for 1921, as a tentative base for 1923, imports in 1923 were 3.38 per cent in quantity and 6.33 per cent in value, whereas exports were 7.61 per cent in quantity and 11.21 per cent in value. Since the consumption of cotton in the calendar year 1923 was greater than in the calendar year 1921, it is probable that, when all the figures become available, the quantity and value of cotton cloth production will be found to be greater, in which case the actual percentages for 1923 will prove to be smaller than those indicated.

Exports from the United States have exceeded imports in every year since 1875. The bulk of the exported cloths are woven of coarse or medium numbers of yarn, whereas the bulk of the imported cloths are woven of fine yarns.

Type of Imported Goods.

V. What types of cotton cloth constitute the bulk of the import trade, and are these cloths similar or different in character from those produced in this country?

The types of cotton cloth predominating in the import trade vary from time to time. For a number of years prior to the World War, in fact, until about 1920, the leading cloth imported consisted of dyed Venetians; these were eight-harness warp sateens, with a silk-like finish imparted by secret processes. They were very popular as linings. The next largest import was of medium-fine and fine plain white goods, such as muslins, cambrics, nainsooks, lawns, and organdies. There were substantial importations of fine shirtings and ginghams, of dotted Swisses, of ratines, voiles, piques, filling, sateens, typewriter cambrics, poplins and plain and novelty dress goods. Colored goods predominated, followed by bleached goods, whereas imports of gray goods were relatively small.

In 1920, voiles constituted the main import. Fine plains ranked next in the imports of cloths.

Beginning with 1920, imports increased both in quantity and in value. This increase has been due mainly to the larger importations of fine yarn goods; in 1913, for instance, cloths woven of fine yarns, above 40s in average yarn number, constituted less than one-half of the total, whereas in 1923 they constituted over two-thirds of the total. The most striking post-war changes have been three: The decline in imports of the eight-harness warp Venetians; the increase in imports of five-harness warp sateens made of fine yarns, and the great popularity of a new fabric that has been named "cotton broadcloth."

The main cotton cloths now imported are as follows: (1) Cotton "broadcloth" shirtings; (2) fine combed warp sateens; (3) voiles, and (4) fine plains (lawns, organdies, nainsooks, cambrics, etc., of average yarn number above 40s). These four types constituted over three-fourths of the total import during 1923 and 1924 to date. Cloths imported in smaller but appreciable quantities have included ratines, Japanese crepe, Venetians, fine ginghams, dotted Swisses, and fancy woven fabrics. Gray goods have predominated, with colored goods second, and bleached goods last.

The increased proportion of goods entered in the gray has probably been due in part to the lower rates of duty, in the present as in other acts, applicable to unfinished goods. In larger part, however, it has been due to the improvement during the last decade in the finishing facilities in this country for such cloths. One advantage in importing in the gray is that the goods can be finished here as desired to meet the changing demands of the market. It is claimed in the trade that charges for finishing are as low in the United States as in England; this is in line with the facts found by the Tariff Board as far back as 1911. No recent investigation of finishing costs have been made by the Tariff Commission either in the United States or in England.

In answer to the second part of the inquiry, it can be stated that a large portion of the imported cloths are entirely different in character from cloths produced in this country. Most of the other imported cloths are similar in general character to domestic fabrics, but usually differ therefrom by reason of the type of cotton used, the type of spinning used, variations in design or variations in finish.

In general, it may be said that the great bulk of the domestic fabrics are woven of yarns ring-spun from American cotton, whereas the great bulk of the imports are woven of yarns mule-spun from Egyptian cotton. This basic difference results in the imported goods having in general a better "cover" and a smoother feel than the domestic, although the latter will in many instances prove more durable. Swivel-woven cloths, including the genuine dotted Swisses, are not produced in this country, and there is practically no domestic production of fabrics made of yarns above 120s, except such as are woven with imported yarns. Japanese crepe, made of harsh Indian and Chinese cottons, is also different in character from any domestic crepe. Attempts have been made by American manufacturers to produce several other specialties, such as Penelope canvas, but the efforts have been given up because of the extra care and slow rate of production involved in their manufacture, and consequent high labor cost.

There is domestic production of cotton broadcloth shirtings, fine combed warp sateens, voiles and fine plains (other than the extreme fine plains), the four types now constituting the bulk of the imports; also in the case of ginghams. In each of these instances, however, aside from the fact that the imported fabrics are usually made of mulespun Egyptian cotton and the domestic of ringspun American cotton, the great bulk of the domestic production is of the lower grades. The imports are mainly of the finer grades. In other words, the market in the

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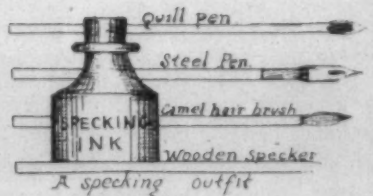
Knit Goods

Putting a Silk Rustle Into Cotton Goods

THE pecular creaking, crackling sound emitted by a silk or imitation silk fabric is not naural physical or chemical property of the silk fiber, although the average person expects to find the rustling feature in anything made of silk. Because of this tendency on the part of the consumer, manufacturers of of textiles have given considerable attention to the production of a scroopy effect in not only silk fabrics but in cotton, woolen and mixed fabrics. As the creation of a prominent rustling sound is readily produced in silk textures by a process of eliminating the gummy, sticky properties from the fiber, and then running the gods through a bath composed cheifly of tartaric or other acid, so can a like rustling sound be produced in goods made of material other than the product of the silk worm. It is true that the silk fiber in its natural state possesses a high degree of lustre as compared with most other fibers, but even this feature is not a detriment when it comes to producing a cotton fabric which shall have a high degree of gloss as well as possess the desired crackling, rustling features of silk. The modern processses of mercerizing cotton, during which the fiber is uncurled from its natural state, then made to curl the other way so as to change filments from a flattened to a rounded order, enable the manufacturer to produce an artificial lustre on cotton goods which rivals silk. The rounding of the cotton fibers, in the mercerizing process accompanied by a slightly swollen condition which makes the exterior surfaces smooth, enables the fiber to catch the light at different angles, the refraction of which produces lustre.

Fig 1

Yarn variations
Fig 3



A specking outfit
Fig 4

The scrooping process does the rest. As silk already possesses the necessary degree of lustre it need be subjected to the scrooping process only in order to give it the rustling sound whenever it is pressed or rubbed. But the lustre must be produced artificially in cotton fabrics, therefore the operation of imparting the attractive crispy condition in cotton goods, two operations are needed instead of one. First, the mercerizzing process to develope the gloss and secondly, the scrooping process to develop a crispy state in the texture which will creak and crackle plainly when handled.

Assuming that the cotton has been properly mercerized, during which the fiber has been cleansed of the numerous natural and mechanical impurities during the treatment in the concentrated caustic soda baths, the material is in condition for chemical treatment in the scrooping vats. Reasonable precaution is necessary to avoid damaging the fiber. Necessarily a certain percentage of the natural elasticity has to be removed from the staple in order to make it creak when bent. Perfectly pliable fibers bend so easily that the required rustle in the finished fabric would not be present. The fiber must be impregnated with the acids in order to stiffen them enough to make the contact of the surface of one fiber against another fiber develope a friction and a consequent crispy sound when pressure is applied. And all this must be done without tendering the fiber, otherwise tendered goods will result. There are several acids, belonging to the mineral class, such as nitric acid, and sulphuric acid, that possess the properties necessary to remove all greasy substances from almost any textile fiber and leave the fiber so dry and harsh that a creaking sound can be produced by rubbing or pressing any texture into which such fiber has been made.

The intensive action of the acid may originate a scrooping property in the fabric, but at the expense of the texture, which will be made too tender to pass the wearing test, and probably be rejected by the expert analyists of the wholesale origanizations.

For imparting a scroopy condition to silk fabrics tartaric acid is largely used, although common commercial lime juice is employed for this purpose in some plants. As in the case of cotton, wool and mixed goods, it is quite definite that it is the acid present which is the immediate cause of the condition in the silk fiber that results in the rustling

An ounce of tartaric acid to a gallon of water is used, and the amount of water in the bath is of course dependent on the volume of goods to be treated. The yarn or silk fabric is immersed in the bath for about thirty minutes, lifted, rinsed and wrapped for finishing.

In scrooping cotton fabrics some of the organic acids are used, such as citric, acetic, formic or latic. Vegetable oils and fats are also used in acid form with fair results, and are preferred by some manufacturers because there is practically no danger of such fatty acids tendering the texture of the goods. The fatty acids are precipitated on the cotton fabric as a result of the action of a mineral acid with which the goods were previously impregnated. Two actions result, both of which act in a combined manner to impart the sought-for crispy condition in the texture. The first action tends to change the former soft condition of the fibers to a hardened one, as soft pliable yarns will not emit the silky rustle even when strenuously pressed and rubbed. The second action tends to give a resisting property to the fibers as a result of the fatty acids penetrating the filaments and making them more like solid strands, the surfaces of which resist one another and omit slight crunching sound when disturbed in handling.

A vat for scrooping cottons with tartaric acid or latic acid is made with one pound of the acid to a gallon of water. The goods are worked in the vat for twenty minutes, squeezed and dried.

A type of vat is shown in section in Figure 1 in which the main vat is marked A and the secondary vat B. The object of the latter vat is to catch the drainage of liquor falling from the fabric as it is drawn in a continuous chain form through the rollers C. Otherwise the excess liquor squeezed from the goods would fall into the main vat. The liquor in the secondary vat is replenished with more of the acid before it is drawn off into the main vat for further use. The purpose of the rolls D and C is to guide the fabric in and out of the vat as the latter is drawn along by the revolving action of the heavy squeezing rolls.

Perceptible Effects of the Scrooping Process on Textures.

If a fabric is properly handled in the scrooping process there will hardly be any definite changes in the appearance that can be detected by the eye. But if the goods are subjected to an analysis beneath a magnifying glass it will be noticed that two changes in the texture have taken place. Figure 1 illustrates the condition of the yarns and the fabric of a sample examined under a glass before treatment to the scrooping process. It can be seen that the texture is open and the thread fairly smooth. If the same fabric is examined after treatment it will be observed that the threads appear rougher and the texture closer as shown in the sample in Figure 3. The roughened exteriors of the yarns are essential to the production of combined creaking and rustling. Smooth yarns would simply slide by one another without emitting the desired crackling. The roughening of the surfaces of the yarns also tends to make the interstices smaller and the texture closer woven.

Practically the same conditions prevail in knitted fabrics. A sample of knitted fabric is shown in enlarged shape in Figure 4 to illustrate the appearance of the loops before treatment. The sample in Figure 5 shows the condition of the threads and loops after treatment. Knit goods are not required to have a silky rustle as a rule, as softness and elasticity of fabric are the prominent features in these fabrics. But silk knitted hose is often scrooped so as to improve the rustle. And sometimes common cotton hose are srcooped so as to make the yarns sufficiently crispy to rustle in imitation of true silk. One-half pound of citrolene is used to a gallon of water in the bath, which is brought to a boil and the hosiery immersed for about fifteen minutes. lifted, rinsed and finished.

U. S. Shipments of Cotton Goods to Non-contiguous Territories

Shipments of cotton manufactures from continental United States to its non-contiguous territories during April were as follows: To Alaska $21,469; Hawaii, $198,855; and Porto Rico, $791,198, compared with $13,714, $248,686, $876,917, respectively, for the corresponding month of 1923. Sales of cotton cloth to Alaska increased, and to Hawaii and Porto Rico decreased, the figures for April, 1924, being: Alaska, 53,966 square yards, valued at $13,776; Hawaii, 474,638 square yards, worth $172,672; Porto Rico, 4,371,101 square yards, with a value of $715,882. April, 1923, shipments were: Alaska, 47,519 square yards, worth $10,184; Hawaii, 799,789 square yards, valued at $207,415; Porto Rico, 4,574,790 square yards, with a value of $796,672.

In April, 1924, the United States sent 794 dozen pairs of cotton hosiery, valued at $2,930, to Alaska; 3,574 dozen pairs with a value of $9,886 to Hawaii; and 31,353 dozen pairs, worth $56,768, to Porto Rico. Shipments of other knit goods to these territories were as follows: $4,763 to Alaska; $16,297 to Hawaii; $18,548 to Porto Rico. — Commerce Reports.

Tariff Board Reports On Textile Depression

(Continued from Page 15)

United States for the medium fine goods is controlled by the domestic mills, whereas the market for the fine goods is divided between the imported and the domestic, with the market for the extremely fine goods entirely controlled by importers.

On practically no type of cloth made in bulk by the domestic mills is there serious competition from abroad. On such goods the American mills, aided by their much more extensive use of the automatic loom, not only control their domestic market, but offer strong competition in foreign markets. These goods manufactured and exported in bulk include sheetings, print cloths, tobacco cloths, osnaburgs, ducks, cotton flannels, coarse colored cottons (cottonades, denims, ticks, etc.), and ginghams, made of carded yarns not finer than 40s, also certain finer goods, such as single voiles.

In general, it may be said that on cloths that can be made of upland short-staple cotton, the spinning limit of which is about 40s, there is little or no competition from abroad. Such imported cloths made from coarse or medium yarns are mainly of the nature of specialties required in limited amounts. There is a large export and a substantial import trade, in the medium fine range, goods made of yarns from 41s to 60s. In cloths made of fine yarns, above 60s, there is very little export trade, whereas imports are large. Imports of the extremely fine cloths monopolize the limited demand for such fine high priced goods.

The United Kingdom supplies most of the cotton cloths imported by the United States.

Price or Quality.

VI. What are the main reasons for the importation of cotton cloths? In particular, are such imports due primarily to price or to quality?

Among the main reasons for the importation of cotton cloths may be listed the following:

1. Quality. That portion of the population of the world which can afford fine cotton fabrics of high quality is accustomed to turn to England, France or Switzerland to supply their requirements and the United States is no exception to this rule. The superior quality of imported cotton cloths may be due to more care in manufacture, to the use of Egyptian cotton, to the use of mulespun yarns, to the use of flyer-twisted yarns, to differences in construction (for instance, to a larger number of threads, of finer yarns, than customary in the United States), to superior finish or to other factors.

2. Reputation. Various imported fabrics are sold under trademarks that have become familiar to the American public as a guarantee of established quality. In such instances the foreign fabric is bought because of reputation and often without knowledge as to whether the goods are of foreign or domestic origin. On the other hand, many goods are sold at high prices simply because they are marked "imported" and irrespective of the fact that domestic goods of equal or superior quality may be available at lower prices.

3. Lack of Domestic Production. The American cotton industry does not use swivel looms, because of their slow rate of production and consequent higher labor cost. All swivel-woven cloths, including substantial amounts of swivel-decorated voiles and crepes as well as the more staple "dotted Swisses," must therefore be imported at the present time. These goods are of Swiss or French origin and are produced mainly on hand-looms in the homes. The American cotton industry spins but little warp yarn above 100s, and but little filling yarn above 120s, mainly because the demand is relatively so small that it would hardly pay the domestic manufacturer to undertake to produce them. Fine lawns, organdies, mulls, etc., made of the higher range of fine yarns must, therefore, be purchased abroad. The American cotton industry has no flyer-twisters and therefore cloths such as fine ply voiles and fine ply broadcloths, in which smooth and well-rounded ply yarns of fine counts are essential, must be imported. One domestic firm makes fabrics of quality equal to the imported cloths, using imported yarns, but its output is not sufficient to supply the domestic demand. Japanese crepe, the only cloth imported from Japan in appreciable quantities, is made of Indian or Chinese cotton and therefore has a peculiarly rough, strong feel; this type of crepe is not produced in this country and is of a different character from the crepes made of the softer American cotton, produced in great quantities by the domestic mills. Included in the import trade are various other fabrics of which there is no domestic production.

4. Specialty Demand. Much of the importation of cotton cloth from France consist of specialties. Substantial amounts of such specialties come from Switzerland and England, and smaller amounts from other countries. Such specialties cover a wide range, from voile or crepe grounds, ornamented with novelty yarns, to staple shirting fabrics which are of a confined pattern and which the consumer of exclusive taste buys because he has the guarantee that it will be different. The domestic manufacturer, working on the "mass production" system, is unable to cater profitably to the demand for fabrics of any one type or design required in small amounts. In coutils for corsets, for instance, the American manufacturers supply the bulk demand, which is for smooth piece-dyed fabrics, whereas the smaller demand from custom corsetieres who want something different, is supplied entirely by importations from France of closer-woven, rougher-finished coutils, woven of bleached yarns.

Any imported specialty that attains a bulk demand is quickly reproduced by American producers, although usually in less expensive qualities, by American mills. Illustrations of cotton cloths of com-

paratively recent origin, introduced as specialties but which now partake more of the nature of staples, are voiles, Russian-cord shirtings, and broadcloths.

5. Lower price. The fact that the United States exports large quantities of cloths made of coarse and medium yarns, such as sheetings, drills, denims, tickings, crepes, prints, ginghams, etc., also medium fine fabrics such as single voiles, tends to prove that the 1912 findings of the Tariff Board, to the effect that on such goods the American manufacturer, producing in bulk with the aid of the automatic loom, can compete successfully, are also true today. On the extremely fine range and in specialties, where American products are lacking or else produced in insufficient quantities, there is practically no direct price competition in the domestic market.

In the most directly competitive range, that from 40s to 100s average yarn numbers, price is a more important factor but its relative importance varies according to the class of goods and to the trend of prices here and abroad. Prices in the United States and in England, the chief source of imported cloths, do not always show the same trend and at times in the two countries are much closer together than at others. For instance, from the fall of 1922 to the fall of 1923, the price of American raw cotton, although fluctuating sharply, tended upward, whereas the price of Egyptian raw cotton tended downward. The normal price relation between the two types of cotton was upset, with the result that during this period English yarns and cloths made of Egyptian cotton were, relative to American yarns and cloths made of American cotton, much lower in price than usual. Under such circumstances there was strong price competition on the American market in the competitive range, of 40s to 100s average yarn numbers, and imports in this range increased considerably. However, the trade in fine plains was but little affected and the increase in imports was confined mainly to three cloths, namely, broadcloths, fine combed sateens, and voiles. Broadcloth is of recent English development and has not yet become firmly established in American mills as an article of mass production. The demand for fine combed sateens had become, largely by reason of the increase in the use of bloomers, greater than the few domestic mills on such goods could supply. The competition on voiles expressed itself in lower prices, and therefore larger sales, of the high-grade ply voiles, which are made here by only one or two mills, and did not extend to direct competition on the single voiles which continued to be made and exported in large quantities.

In the spring and early summer of 1924, conditions changed. American prices have gone down whereas English prices have gone up and at the time of this report, in June, 1924, conditions appear to be rapidly returning to the normal status where imports have to be made on the basis of quality or other factor without the aid of lower prices. An investigation at New York shows that on most of the competitive cloths American manufacturers are now quoting prices lower than those at which the foreign goods can be landed with charges and duties paid.

To sum up, imports of cotton cloths are due primarily to the quality of certain grades rather than to general price competition. The relative importance of the price factor varies and at times it is the deciding factor on a limited number of fabrics, but normally, and at the date of this report, the more important factors appear to be quality, reputation, lack of domestic production, and specialty demand.

Effect of Imports.

VII. To what extent has the domestic industry been affected by the post-war increase in the importation of cotton cloths?

This question is difficult to answer with certainty, for the reason that imports constitute but one of the many factors that affect the demand for domestic fabrics, and for the further reason that a substantial proportion of the imported fabrics are of a type not made here at all or else not made here in sufficient quantities. If we assume, however, that each yard of imported cloth displaces a yard of domestic fabric, then, since imports are now on the basis of about 200,000,000 sq. yds. per annum as compared with a pre-war basis of about 50,000,000 sq. yds., it would follow that domestic sales have been affected to the extent of approximately 150,000,000 sq. yds. If the total domestic production be taken as 6,500,000,000 sq. yds., this post-war increase of 150,000,000 sq. yds. amounts to 2.3 per cent of the total output.

Any attempt to examine more precisely the effect of imports, as regards various cloths or groups of cloths, involves more or less estimate and conjecture. Even for cloths of which imports are recorded by trade names no accurate contrast is possible. In few cases is there similar record of the domestic production. For instance, the census figures do not record broadcloths separate from other plain-woven fabrics and do not record fine combed sateens separate from twills and sateens of all kinds. In some cases, such as ginghams and voiles, figures are available for both production and imports; but here again as imports are mainly of the finer types, whereas the bulk of domestic production is of the coarse or medium types, sufficient data are not available to permit the desired comparison.

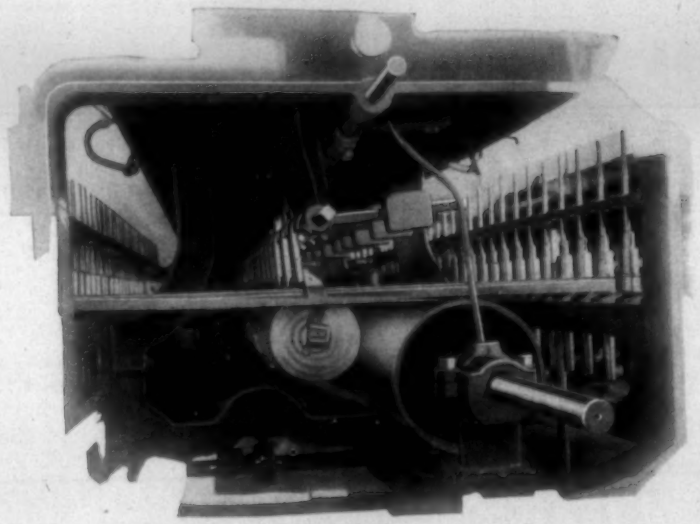
On the basis of such data as are available, it seems reasonable to assume that the domestic output of fine cloths, made of yarns averaging above 40s, constitutes about 20 per cent of the total square yards produced in this country. If this total be approximately 6,500,000 sq. yds., there is then obtained the following comparison of the competition ex-

(Continued on Page 27)

Tape Driven Spinning As Compared To Band Driven

By the H. & B. American Machine Co.

PERFECTION of the tension orattention or lubrication. The brack-
take-up pulley has now removedets which carry these pulleys have
the only obstacle in the matter ofa sliding weight which can be ad-
tape driven spinning frames (orjusted to vary the tension according
twisters). We have adopted theto requirements. It is a well known
principle in the tension pulley andfact that band tensions vary consid-
bracket whicn has been in use for aerably on the same frame, due to
number of years by English makersuneven lengths of bands, worn and



H. & B. American Tape Drive Spinning Frame

of worsted spinning machinery.new bands, humidity affecting new
Driving four spindles to one tape,bands more than oil-soaked bands.
the results have been particularly With the tape drive, it is compara-
satisfactory and the nearly constant tively easy to stitch all tapes the
spindle speed (due to equal tensions same length, and when old tapes
on all tapes), improved quality of stretch, and humidity affects old
yarn and increased production jus- and new tapes unequally, the ten-
tify the small number of extra parts. sion arrangement acts as a compen-
The pulley spindles revolve in oil- sator. We do not hesitate to rec-
less wood bearings and require no ommend this drive.

Must Fight South By Cutting Costs

AT the annual meeting of the Southern-New England Textile Club on Saturday, John L. Burton, treasurer of the Nashawene Mills, New Bedford, Mass., and former president of the club, declared in an address that if the New England mills will reduce their manufacturing costs so that they can meet Southern competition, most of the problems confronting New England mills will be solved.

Former President Burton, who announced that he was going to give a plain talk for which he would probably be secerely criticised and that it was purely his personal opinion, was loudly applauded when he finished. His address follows:

"The depression which we are passing through is world wide, and is the aftermath of the World War. But this is not all the trouble; politics and the financial condition of Europe have a very important bearing on the whole situation, as well as the question of Southern competition.

"France and Germany snarling at each other like a pair of bull dogs is not the best way to straighten out their troubles, and as a result, they are keeping the other countries very much up in the air.

"As we all know, the business of the world is done on credit, and until confidence is restored, and the credit of the world is re-established, there cannot be any real good permanent business.

"We see evidences of keen competition on every hand. Take Great Britain for example. She is sending in enormous quantities of goods, and some of you fellows buy them in preference to our own goods. And why?

"She has an enormous debt to pay, and the only way she can pay it is by exporting her manufactured products. Our mills are stopping machinery and our employees are walking the streets and it seems to me that the position for this club to take and, in fact, all of our people who are engaged in manufacturing is: first, to buy American-made goods, and second, to send men, real men, to Congress who will represent us honestly, and not play dirty politics. Men who will see that we have a tariff that will protect labor as well as capital.

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Cost of Making Sheeting in New England, Carolina and California

Los Angeles, Cal. — Comparative cost figures for operating "an average cotton mill" in different parts of the country are offered by M. H. Merrill & Co. in the second section of the textile survey which this firm is making for the local chamber of commerce.

In preparing the cost figures, the engineers state they studied the conditions prevailing in the textile centers of New England, the Southeast and the mills at present in southern California. Goodyear's mill in this city is mentioned as a particular source of comparison for the local situation.

"To make direct comparisons of mills in different sections of the country," the report states, "is quite difficult, on account of the different conditions, such as the number of working hours, class of labor, etc." For purposes of comparison, therefore, the engineers "assume that identical mills are to be built and operated in New England, the Carolinas and Los Angeles."

Each of the hypothetical mills has 25,000 spindles and complementary looms, operating 48 hours a week in Los Angeles, 48 in New England, and 54 in the South; spinning 21s warp and 24s filling, and weaving 875 pounds of 5.50 sheeting an hour; the mill occupies 250,000 square feet of floor space, and in addition to warehouses, etc.; a 200 horsepower boiler is installed for slashers, bleaching and heating, and the total horsepower of electric motors installed is 1850. More specifically, the construction of the meeting to be manufactured at this mill is 36-inch, 48x40—21s warp—24s filling, 5.50 yard.

With the foregoing as a basis, the engineers have summarized the results of their calculations in the accompanying comparative table.

The figures in the table regarding building costs, electric power, fuel, freight and hours are explained in the following claims, as set forth in the report:

Buildings — "Building costs in southern California are 25 per cent lower than in New England, and 15 per cent less in the Southeast." Electric Power—"The mill under construction would use about 300,000 kilowatt hours of enery each month, with a maximum demand of about 1,150 kilowatts. This power would cost, annually, $29,760 in Los Angeles, $52,560 in New England, and $45,360 in South Carolina." Fuel—"New England uses a high grade of coal, costing about 31 cents per 1,000,000 B.T.U.'s; the South uses Birmingham coal at about 22½ cents per 1,000,000 B.T.U.'s, and southern California burns gas at 20½ cents or oil at 22½ cents per 1,000,000 B.T.U.'s. Figuring that the 200 horsepower boiler is operated 3,000 hours a year in the South, 2,650 hours in New England and 2,650 in southern California, and assuming

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Item	Carolinas	Southern California	New England
Annual production of cloth (lbs.)	2,362,500	2,100,000	2,100,000
Number employees	300	300	300
Number hours per year	2,700	2,400	2,400
Labor cost per employee—hour	$0.26	$0.36	$0.38
Labor—per year	$210,600	$259,200	$273,600
Power—per year	45,360	29,760	52,560
Fuel—per year	6,100	4,180	7,425
Supervision and office	20,000	20,000	20,000
Cost of cotton at 28 cents	733,320	651,840	651,840
Freight on cotton (and compressing)	21,995	14,430	23,975
Total manufacturing cost	$1,037,375	$979,410	$1,029,400
Manufacturing cost per pound	$.439	$.466	$.490
Cost of selling cloth	$48,700	$27,720	$34,650
Freight on finished goods	44,290	10,000	39,375
Depreciation on mill bldgs. (2½%)	14,375	11,875	15,625
Depreciation on machinery (5%)	50,000	50,000	50,000
Depreciation on mill village (5%)	25,000	———	30,000
Taxes and insurance	30,000	30,000	30,000
Supplies and repairs	25,000	25,000	25,000
Salaries of school teachers, etc.	6,000	———	———
Total overhead cost	$243,365	$154,595	$194,650
Overhead cost per pound	$.103	$.073	$.092
Total cost per pound of cloth	$.542	$.539	$.582
Per cent profit on investment	16.3	20.7	13.3
Mill buildings	$ 600,000	$ 500,000	$ 650,000
Machinery	1,000,000	1,000,000	1,000,000
Mill village	500,000	———	———
Total investment	$2,100,000	$1,500,000	$1,650,000
Pounds cotton used	2,619,000	2,328,000	2,328,000
Freight rate on cotton	84c	62c	$1.03
Selling commission	3%	2%	2½%
Profit per pound of cloth	$.145	$1.148	$.105

Selling price cloth—$.687 per hour.
Mill uses 970 pounds cotton per pound—12½ cents a yard.

SOUTHERN TEXTILE BULLETIN

Member of Audit Bureau of Circulations
Member of Associated Business Papers, Inc.

Published Every Thursday by
CLARK PUBLISHING COMPANY
Offices: 39-41 S. Church St., Charlotte, N. C.

THURSDAY, JUNE 26, 1924

DAVID CLARK ..... Managing Editor
D. H. HILL, JR. ..... Associate Editor
JUNIUS M. SMITH ..... Business Manager

SUBSCRIPTION

One year, payable in advance $2.00
Other Countries in Postal Union 4.00
Single Copies ..... .10

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ADVERTISING

Advertising rates furnished upon application.
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Tape Driven Spinning

IMAGINE a spindle driven 7,000 to 9,000 revolutions per minute with a string or band made of coarse yarn or roving.

When the band is new it turns the spindle at full speed but as it gets older it begins to stretch and as it stretches it has a less and less firm hold upon the spindle whirl and the spindle loses more and more of the required revolutions.

Finally it stretches to the point that it falls apart but in those days just before it dropped off the spindles run with only half or a third of the desired revolutions.

For each revolution of the front roll the spindle must make a certain number of revolutions in order to put in the twist required to give strength to the yarn. When the stretched band revolves the spindle only half the desired number of turns, there is only half the needed twist and the yarn is weak and soft.

The spindles that do not revolve the full number of revolutions prevent full front roll speed and also cause warp breakage on the looms.

The modern spinning frame drives its spindles with woven tapes and as the slack is taken up by an idler, the tapes keep the spindles running at approximately the desired speed until the moment that the long used tape finally breaks and falls off.

With tape driven spindles the front rolls may be run at a higher speed and also produce more evenly twisted yarns.

Warp threads which all carry the desired twist do not break as much and both the quality and quantity of the loom production is increased.

Old frames cannot equal the production of modern tape driven frames and it is false economy to continue to operate them.

There are many other improvements incident to the modern spinning frame and we advise our readers to study the description of the modern frames as outlined this week in our "Better Equipment Campaign."

A Fair Price for Cotton

ONE factor of the present depression in the cotton manufacturing industry is the theory that 30 cents is a high price for cotton.

When cotton goes above the 30-cent mark the cotton manufacturers both North and South begin to talk about the price being too high and the buyers of cotton goods, hearing such statements, begin to curtail their purchases.

The cotton manufacturers are to a considerable extent responsible for the situation that exists today.

Those who say that 30 cents is too high, do so without thinking and without proper investigation.

What we are saying upon this subject has no relation to present course of prices but to the cotton question as a general proposition.

A farmer can with a large family of children raise cotton at 25 cents per pound and have some money at the end of the year, but if he takes into consideration a fair daily wage for himself and his children he will find that he lost money.

A man will raise $200,000 among his friends and build a cotton mill, a furniture factory and engage in real estate development and expect to get a fair return upon the capital invested.

Where, however, is the man who will invest his or his friend's money in a plantation, hire a man to run it, pay for labor and fertilizer and expect to get a fair return for less than 30 cents per pound for cotton?

If cotton cannot be raised upon a business basis for less than 30 cents, it is unfair to the farmers of the South and to the business interests of the South to expect the farmers to sell cotton for less than that price.

Those who think that cotton can be profitably raised at 25 cents per pound can easily get experience, for there are thousands of deserted farms that can be leased at normal figures.

The idea that 30 cents for cotton will cause foreign competition in cotton is silly.

It is true that the British Empire Cotton Association has made some progress, but the result of ten years' work is less than the production of many counties in the South.

To be successful they must not only be able to raise cotton but to raise it at a less cost than it can be raised in the South.

Their cost has so far been far in excess of 50 cents per pound and there is little possibility that any foreign cotton, other than India with its short staple, can profitably raise cotton for less than 30 cents per pound.

It is one thing to finance the raising of cotton and another to raise cotton in strange places and have the returns equal the expenditures.

The world must depend upon the South for an adequate supply of cotton and there is no reason for the farmers of the South to furnish an adequate supply unless the world is willing to pay a price that will give the farmer a fair return.

It may be that it will be necessary for the world to be brought face to face with an actual scarcity of cotton before it will be willing to pay a fair price.

The cotton manufacturers of the South should assist in selling to the world the idea that 30 cents is not a high price for cotton.

Where Does Child Labor Exist?

June 20, 1924.

The Editor,
Atlanta Georgian,
Atlanta, Ga.

Dear Sir:

I noticed your editorial and cartoon of June -8 relative to child labor. I will appreciate very much your advising me where any child labor exists today in accordance with the cartoon.

I have no doubt that your paper is sincere in its policy of advocating the abolishment of child labor, but at the same time I think that you have been misled through the propaganda of the United States Department of Labor and that you are advocating the abolishment of something that does not exist. Will you investigate by having someone visit the mills of Georgia or of the other States and see if you can find any case that would justify your cartoon?

Yours very truly,
Southern Textile Bulletin,
David Clark, Editor.

Editor Southern Textile Bulletin,
Charlotte, N. C.

Dear Sir:

We would like to subscribe to the Bulletin and if you will let us know the cost of subscription for a year we will send you a check at once.

We should like to have any back issues of the Bulletin which deal with the Federal Child Labor Amendment.

Very truly yours,
National Child Labor Committee.
Research Department.

Charlotte, N. C.,
June 20, 1924.

National Child Labor Committee,
New York City.

Dear Sirs:

The subscription price of the Southern Textile Bulletin is $2.00 and we will accept your subscription, but have no desire for same.

The Southern Textile Bulletin publishes the truth and would feel strange in your office where truth is always the last consideration.

The practice of misrepresentations and the skillful manipulation of half-truths to convey false impressions has long been the policy of your organization, and none other has been guilty of more falsehoods.

Yours truly,
Southern Textile Bulletin,
David Clark, Editor.

Our Suggestion

THE New England papers, and particularly those of Fall River, Mass., are filled with ideas about advertising the use of cotton goods.

They seem to think that publicity would increase the use of cotton goods and it might do some good, but in our opinion fashion is too powerful a factor to be overcome by merely advocating the use of cotton goods.

It is now fashionable to use silk and artificial silk or rayon, but fashion will some day decree that clothes that shine are in bad taste and then cotton goods will temporarily take the place of silk and its imitations.

We suggest to our New England friends that advertisements such as above placed in newspapers might push forward the day of the change and bring an early demand for cotton goods.

Women are the greatest buyers of dry goods and few of them are willing to wear goods that are declared to be "tacky."

Personal News

Ira B. Hayes has resigned as resident manager of the Loray plant of the Manville-Jenckes Company, Gastonia, N. C.

W. D. Ballard has accepted the position of superintendent of the Lullwater Manufacturing Company, East Point, Ga.

C. M. Byrd, of Crump Park, Ga., has accepted the position of overseer of carding at the Orange Cotton Mills, Orangeburg, S. C.

Chas. L. Lee has not resigned as superintendent of the Carter-Collier Company, Barnesville, Ga., as recently reported through error.

I. A. Taber, of Pawtucket, R. I., has been appointed resident agent of the Loray plant of the Manville-Jenckes Company here and the High Shoals plant at High Shoals, N. C.

Lyman Hamrick, superintendent of the Musgrove and Alma Mills, Gaffney, S. C., has been made general superintendent of the Limestone and Hamrick Mills also.

S. A. Forston has been elected president of the Sibley Manufacturing Company and the Augusta Factory, Augusta, Ga., to succeed the late Jacob Phininzy.

Stuart W. Cramer has resigned as vice-president of the Southern Yarn Spinners' Association because of the various other activities to which he must devote his attention. G. Grady Rankin, of Gastonia, has been elected vice-president.

E. W. Hollifield, of the Taylorsville Cotton Mills, Taylorsville, N. C., has become night carder and spinner at the Hall-Kale Manufacturing Company, Troutman, N. C.

Mrs. Leroy Springs Head of Committee.

New York, June 24.—Mrs. LeRoy Springs, Lancaster, S. C., was unanimously elected chairman of the Democratic Convention committee on credentials today when it met to iron out minor difficulties of several States. Miss Darden Mose, assistant attorney general of Arkansas, was elected secretary of the committee.

Obituary

W. A. Coleman.

Gaffney, S. C.—W. A. Coleman, retired capitalist and mill man and former candidate for Governor of South Carolina, died here at 4:30 o'clock Saturday afternoon. He was 49 years of age.

Mr. Coleman suffered a broken thigh one week ago when an automobile in which he was riding overturned just outside of Gaffney. His injury gave him little trouble until the middle of this week when he contracted pneumonia, which physicians gave as the direct cause of his death.

At the time of the accident, Mr. Coleman was en route for Princeton, N. J., where he intended attending the commencement exercises. Mr. Coleman had a son in the graduating class.

Mr. Coleman was the son of Col. Robert L. Coleman and Anne Rice Coleman, and was born in 1875.

Two years ago Mr. Coleman opposed Thomas G. McLeod for Governor of South Carolina, but was defeated, finishing second in a field of three. He founded the Glenn-Lowery Mills at Whitmire, and was considered one of the leading financial figures in the State.

Mr. Coleman is survived by five children, two sons and three daughters, and his wife, who was in Asheville at the time of her husband's death.

Mrs. L. Banks Holt.

Graham, N. C.—Mrs. Mary Catherine Holt, wife of the late L. Banks Holt, and one of the most highly esteemed residents of Graham, died here at her home Sunday after a long illness. She was 81 years old.

For the past year Mrs. Holt had been in declining health and for two weeks her condition had been regarded as extremely grave. Prior to her marriage she was Miss Mary Catherine Mebane. She was a member of one of the most prominent families in this section of country and had hundreds of friends and admirers. Mrs. Holt was a consecrated member of the Presbyterian Church and for many years was active in the religious and social affairs of the community.

She leaves four daughters: Mrs. G. A. Mebane, Greensboro; Mrs. John C. Drewry, Raleigh; Mrs. James K. Mebane, Washington, D. C., and Mrs. Victor M. Graves, New York. She also leaves several grandchildren and great-grandchildren.

Boyce Weaver's Knotter

IN this issue we are carrying a full page advertisement relative to the Boyce Weaver's Knotter.

For the past year Erskine E. Boyce, of Charlotte, has been working upon the problem of perfecting a weaver's knotter under manufacturing conditions and in sufficient quantities as to subject them to all conditions of work.

Mr. Boyce and the selling agent, A. B. Carter of Gastonia, N. C., placed more than 1,000 weaver's knotters in Southern cotton mills and have been carefully watching their work.

Feeling that they have perfected the knotter they are announcing their position and that they are ready to accept orders in quantities.

They expect to establish their main office at Gastonia and to eventually manufacture the knotters in that city.

A. B. Carter will have entire charge of sales.

MILL NEWS ITEMS OF INTEREST

Charlotte, N. C.—The Savona Manufacturing Company has begun the construction of ten new cottages in the mill village. O. J. Jay is the contractor.

Cramerton, N. C.—The Cramerton Mills have filed an amendment to their charter increasing the capital stock of the company from $3,000,000 to $4,000,000. Stuart W. Cramer is president of the company.

McComb, Miss.—The new Barthadale Cotton Mills, under construction here by the Landau Bros., has let contract to the Bahnson Company, Winston-Salem, N. C., for humidifying equipment.

Longview, Texas.—O. S. Hunter, representing the Texas Textile Mills, was here to inspect local sites and confer with a number of business men relative to building a mill here.

Eastman, Ga.—It is reported that the Eastman Cotton Mills plan to erect a new 15,000 spindle mill. The company recently completed the installation of ten Draper looms, 40-inch, and ten Stafford looms, 40-inch.

Gastonia, N. C.—The Loray plant of the Manville-Jenckes Company, which has been curtailing for some time, resumed full time operations this week.

Great Falls, S. C.—The Republic Mills Nos. 1 and 2, which have been operating half time, night and day, have resumed full time operation, both day and night.

Duke, N. C.—The Parks-Cramer Company, of Charlotte, have secured contract for the heating, sprinkling and humidification of the new Erwin Cotton Mill of 35,000 spindles.

Salisbury, N. C.—The North Carolina Finishing Company has awarded contract for new warehouse to E. H. Clement Company, Charlotte, N. C. J. E. Sirrine & Co., Greenville, S. C., are the engineers.

Aragon, Ga.—Recent improvements to the Aragon Mills include the installation of Westinghouse motors for the four-frame drive in the spinning room and the line shaft drive in the weave room and the installation of the Parks-Cramer humidifying system with automatic controls.

Athens, Ga.—Work is being rapidly completed upon the addition to Athens Manufacturing Company Mill No. 1. When completed 9,000 spindles will be moved from Mill No. 1 and that mill completely dismantled. The Athens Manufacturing Company has five looms on tire fabrics and 20 looms on chafing fabrics.

Lexington, N. C.—The Wabena Mills have begun construction of a fifty-foot addition to their plant here.

Stubbs, N. C.—The roof of the Buffalo Mills was blown off during a heavy storm last week.

Tallassee, Ala.—The Mount Vernon-Woodberry Mills have let contract to the Parks-Cramer Company, of Charlotte, for installation of Parkspray humidifier system consisting of the latest type equipment with automatic humidity control. The company also let contract to Parks-Cramer Company for heating and fire protection. This new equipment is for the No. 2 mill here. J. E. Sirrine & Co., of Greenville, are the engineers.

Fort Worth, Tex.—Chas. T. Main, 200 Devonshire street, Boston, Mass., engineer for Worth Mills, Lloyd H. McKee, president, states that company is proceeding with construction of cord fabric tire plant; main building, three-story, 218x145 feet, standard mill construction with steel beams; picker house, 50x40 feet, two stories, standard mill construction with small boiler room for heating and a waste room; both buildings will have temporary ends so that buildings can be doubled in length in future; will also erect one story office building and two sections of one story storehouse for cotton and finished goods; land is available for any extension required; power will be purchased; mill is to be equipped with 16,000 ring spindles and all necessary preparatory machinery, 6,000 twister spindles and cord looms; will move textile machinery from Fairhaven Mills, New Bedford, Mass.; Thos. S. Byrne, Fort Worth National Bldg., Fort Worth, has general contract.

Weldon, N. C.—Audrey Spinning Company has awarded contract to Huntington & Guerry, Inc., Greenville, S. C., for wiring, installation of motors and sub-station and electrical equipment purchased from Allis-Chalmers Manufacturing Company. J. E. Sirrine & Co., Greenville, S. C., are the engineers.

Textile Club Meets

Greenville, S. C.—"The water is fine, the atmosphere is good, and the fellowship can't be excelled," said T. M. Bennett, of Brandon Mill, Saturday afternoon at Wildwood Park in responding to the word of welcome which W. M. Grier, manager of Wildwood, extended to the visiting textile men. The Greenville Textile Club met at the park for its regular meeting. Congressman J. J. McSwain addressed the club briefly on "The Club as a University." The overseers and superintendents of the five Woodside plants outside of Greenville and employees of other Woodside enterprises were honorary guests of the Woodside executives who entertained the members of the Greenville club. About 150 including John T. Woodside, president of the Woodside Cotton Mills Company, were present.

The early part of the afternoon was spent enjoying the cool water of the swimming pool. The pool is fed with clear, cool water directly from a mountain stream. The contest series which was won by W. O. McElrath, of Poinsett, and J. D. Whitmire, of Mills Mill, representing the carders, was held next. The Easley Band, directed by H. O. Brandt, played several selections between the contests and dinner. The business session and speaking closed the program for the afternoon.

The club accepted the invitation of J. D. Whitmire, of Mills, to hold the next meeting with the Mills Mill members.

"You are engaged in one of the biggest businesses in the civilized world," Congressman McSwain told the members of the club. "No limits have been fixed, no boundary has been set for the use of cotton."

Mr. McSwain made the foregoing remarks in mentioning the business aspect of the club's activity. He also mentioned the social and educational aspects of the organization, laying particular emphasis on the club considered as a university.

In giving the pro and con of a college education, Mr. McSwain said:

"People who have not a college education put a great deal more value upon it than those who have had the advantage of it," he said.

The Easley Band received a number of compliments during the afternoon. Congressman McSwain said that "they were just as good looking as the West Point cadets." Mr. Bennett also commended the members on their appearance. They wore new white band uniforms with gold-trimmed caps.

Everyone present had a good word to say concerning the attractiveness of hte party. The lodge is finished with the true lodge effect and has many realistic decorations on the interior. Slick Rock Falls, over which the water drops fifty or sixty

feet, was visited by many of the guests. The swimming pool seemed to be a general favorite.

Dinner was served the guests in picnic fashion. All the young women present assisted in serving the guests. Following are the names which appeared on the register: Lucile Collins and Nona Watson, Brandon; Mary and Lucile Norris, Camperdown; Hazel Gregory and Nena Mae Roland, Poe; Lena Garland and Mary Turner, Dunean; Evie Bullard, Bleachery; Gertrude Hughes and Elsie Gardo, Judson; Ruth Jones, Agnes McMahan, and Mary Elizabeth Hollis, Monaghan; Zelphia Pollard and Annabelle Whitmire, Woodside.

Comparative Cost for Making 5.50 Sheeting in Carolinas, New England and California

(Continued from Page 21)

33,480 B.T.U.'s per boiler-horsepower hour for a 100 per cent efficient fuel, we find that the yearly fuel cost in New England would be $7,425; in the South, $6,100; and in southern California, $4,790 if oil were used, and $4,180 if gas were used."

Freight—"The mill in southern California would get its cotton from California and Arizona points at a total yearly freight saving of about $7,500 over the Eastern mills, which get their cotton from Galveston. Also, the Eastern mills have the expense of shipping their finished goods to the consumer on the Pacific coast, which expense would be practically eliminated by the Los Angeles mill. This expense (2,100,000 pounds at $1,875 per 100 pounds) would amount to $39,375 a year. Thus the Los Angeles mill would save about $45,000 a year on freight."

Wages and Hours—"Wages in textile mills in southern California are at the present time somewhat higher than the wages in Southern mills, TWO—Comparative Cost ff-6 and slightly lower than those in New England. In the Southeast, and in some parts of New England, the mills are operated a greater number of hours per week than is allowed in California. There has been for some time considerable agitation for shorter hours in the South, and it seems logical that a change will result from the influx of workers from the North."

A reference is made in the report to mill villages. "Conditions in southern California make them unnecessary," it is stated. "Thus the Southern mill under consideration would have an investment of about $500,000 for a village, which the New England and southern California mills would not have."

Regarding labor, the report says: "There is an abundant supply of labor, both male and female, and it is 90 per cent American-born and entirely English-speaking. There is already here a large number of experienced mill operatives who have been attracted by the climate."

There follows in considerable detail a discussion of the supply and rates in Los Angeles of electric power, natural gas, oil, coal and water.

The following comparative figures on industrial electric power rates are included:

K W H Per month	Los Angeles a	San Francisco b	Fall River, Mass. c	Newark, N. J. d	Columbia, S. C
50,000	1.08	1.28	1.98	2.02	1.63
100,000	1.00	1.06	1.80	1.87	1.37
150,000	0.95	1.03	1.70	1.79	1.29
200,000	0.91	1.01	1.64	1.76	1.23
250,000	0.89	0.98	1.60	1.74	1.20
300,000	0.86	0.97	1.58	1.72	1.18
300,000	0.86	0.95	1.54	1.65	1.16
500,000	0.85	0.93	1.53	1.60	1.15

The following conditions assumed in each case:

Maximum demand equals 60 per cent of connected kilowatt load.

For 50,000 K.W.H. month, assume 312 connected horsepower and 140 kilowatt demand.

For 100,000 K.W.H. month assume 625 connected horsepower and 280 kilowatt demand, etc., etc.

(a) Voltage 220 or 440; 5 per cent load factor discount.

(b) Voltage 2,200; transformer losses about 5 per cent; transformers to be furnished by consumer for voltage less than 2,200.

(c) Coal clause: Add .001 cent per K.W.H. for each 25-cent increase $4 per ton for coal, and virce versa. Above rates based on coal at $7 per ton, which is the present price for Pocahontas smokeless.

(d) Coal clause: Add .028 cent per K.W.H. for each 25-cent increase over $5.25 per long ton for coal each month. and vice versa. Above rates based on coal at $7 per ton, which is the present price for Pocahontas smokeless.

*These rates (except those of Los Angeles) obtained from 1923 Rate Book of National Electric Light Association.

Plenty Boll Weevils.

Rockingham, June 19. — Manager Hasty, of the T. C. Leak farms, held a contest among the farm tenants the past two weeks, offering prizes to the ones bringing in on June 14 the most boll weevil. Sixty dollars was thus given away last Saturday, with a motley array of bottles on exhibit in his office containing over 6,000 weevil. These came from only the Leak 2,000 acres of cotton.

Tariff Board Reports On Textile Depression

(Continued from Page 19)

perienced by fine cloths and by other cloths in 1923:

Included in the imports of fine goods are some made with yarns finer than any produced in this country. Some of the coarser goods, such as the Japanese crepes, are also made of yarns different from any produced in this country. It may therefore be assumed, as an approximation of the true condition, that imports of coarse and medium cloths now constitute about 1 per cent of the domestic production of such cloths and imports of fine goods about 10 per cent of the production of such cloths.

Textile Exports Increase

Export figures for 1924 have shown a steady increase since the first of the year. Figures just issued for the month of May show exports of cotton cloths totalled 44,762,650 square yards. This compares with 32,590,000 square yards for April, 30,575,000 square yards for March, 28,867,000 for February, and 28,444,000 square yards fro January of this year. It can be seen that the increase has been steady. The big increase is for the month of May over the month of April of this year, reflecting apparently the reports of steady export business which have been heard in the trade for some time. Exporters have been emphasizing that while the trade has improved, that it has not been in large quantities—all of which seems to be apparent in these export figures.

Bleached goods seem to be the big item of improvement in exports, judging from the Government figures. During May, 1924, the exports of bleached goods were 9,849,569 square yards, which compared with 6,065,730 square yards for April, 1924, and with 5,524,898 square yards for May, 1923. For the 11 months' period ended May, 1924, exports of bleached goods are coming closer to the corresponding period of last year—73,868,340 square yards, against 80,238,469 for the year previous.

Exports of gray goods showed an increase for May at 8,861,656 square yards, compared with 7,153,055 square yards for April, 1924, and 6,506,041 square yards for May of last year. For the 11 months' period ended May, 1924, gray goods exports are far behind those of the corresponding period of the previous year—86,357,786 square yards, compared with 130,457,345 square yards for the previous year.

Exports of printed goods show a considerable increase for May over the previous month—being 10,494,683 square yards, compared with 7,100,000 square yards for April, 1924, and with 9,177,754 square yards for May, 1923. For the 11 months' period ended May, 1924, the exports of printed goods were 83,037,111 square yards, compared with 102,856,039 square yards for the corresponding period of the year previous.

There was an increase in exports of yarn dyed goods during May, being 6,711,935 square yards, compared with 4,870,000 square yards for April, 1924, and with 5,849,271 square yards for May, 1923. For the 11 months period ended May, 1924, exports of yarn dyed goods were 61,928,191 square yards, compared with 78,570,967 square yards for the corresponding period of the year previous.

Total exports of cotton cloths for the 11 months' period ended May 1924, are considerably under those of the corresponding period of the year previous, being 389,081,533 square yards, compared with 506,089,655 square yards for the corresponding period of last year.

Spindle Activity Declined.

Washington, June 24. — Cotton spinning activity, declined further during May, today's monthly report of the Census Bureau, showing a reduction of more than 8,500,000 the number of active spindle hours for the month as compared with April.

Active spindle hours for May totalled 5,907,670,026, or an average of 156 per spindle in place, compared with 6,769,711,331, or an average of 179 for April, this year, and 9,309,093,873. or an average of 249 for May last year.

Spinning spindles in place May 31 totalled 37,784,690, of which 30,493,165 were active at some time during the month, compared with 37,745,967 on April 30, this year, of which 31,871,665 were active, and 37,334,021 on May 31 last year, of which 35,390,137 were active.

The average number of spindles operated during May was 25,506,973, or at 67.5 per cent capacity on a single shift basis, compared with 30,177,468, or at 79.9 per cent capacity in April, this year, and 40,192,970, or at 107.7 per cent capacity in May, last year.

A Slasher Clamp

Carl Mangum, of the Avondale Mills, Birmingham, Ala., has invented a loom beam clamp for saving waste on slashers.

Mr. Mangum describes the operation of the clamp as follows:

The slasher tender places the bottom clamp on loom beam while slasher is on slow motion, it goes one round with beam that puts the yarn on top of lower clamp. He places the top clamp on, but does not stop slasher until he doffs beam. The clamp holds to beam and keeps the yarn straight and tight for the tyin and drawing-in machines and it cuts out all waste between slasher and loom. The tender has to use the waste from bottom of beams for tie threads.

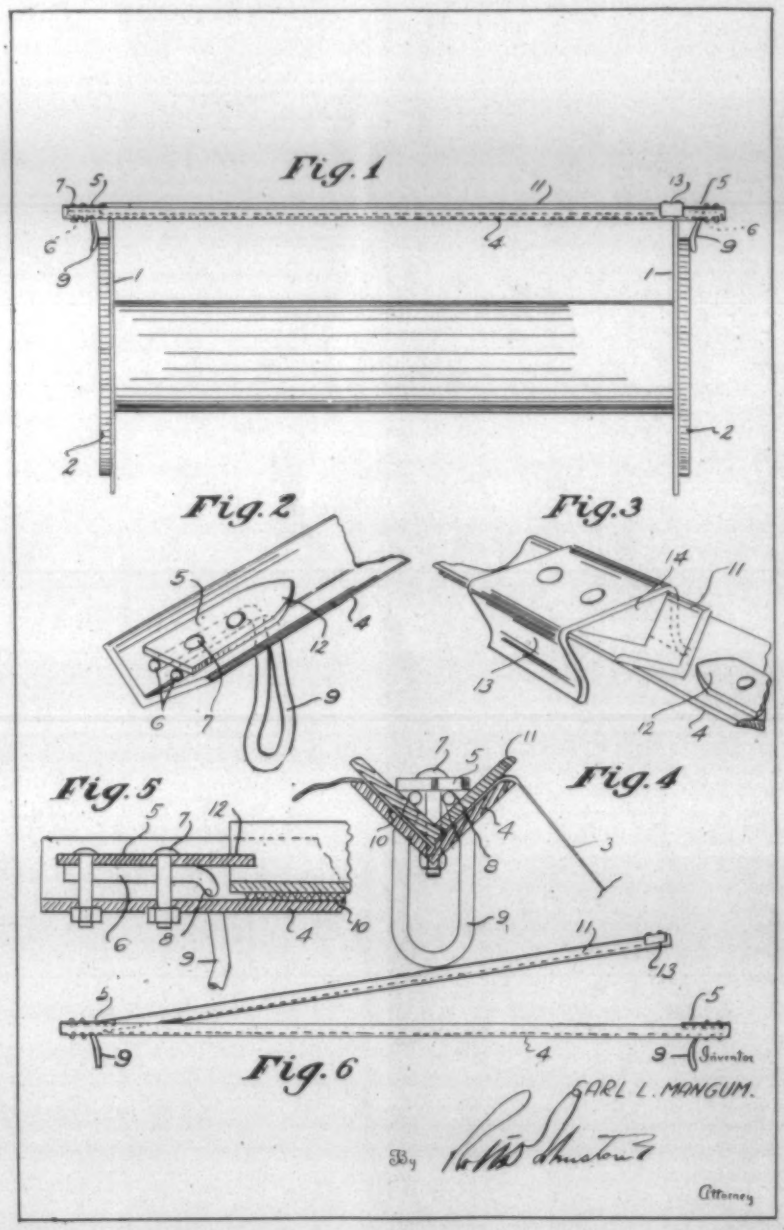
Figure 1 is a side view of a loom beam with my improved warp clamp applied.

Figures 2 and 3 are detail views of the ends, respectively, of the under and upper clamp member showing the manner of attaching the several clamp springs.

Figure 4 is an enlarged cross-sectional view through the assembled warp clamp showing the position of the warp threads when clamped therein.

Figure 5 is a longitudinal sectional view through one end of the clamp assembled.

Figure 6 is a view of the tow clamp members preparatory to assembling.



Must Fight South By Cutting Costs.

(Continued from Page 20)

"Just picture in your minds the scenes that have been enacted in Congress during the past session. It seems to me that the thing for all thinking men to do is to see that a great many of our representatives in Congress during the past session are elected to stay at home at the next election, as they are of no earthly use as lawmakers. They have acted like a lot of school boys; 'if you don't play my way you cannot play in my yard.'

"Take the position of the renegade Republicans who have opposed the President in every possible way and have been led by men who do not care anything about the welfare of the country but only for their own self-aggrandizement.

"I think some of the European nations are much better in this respect, for, if the government in power is defeated in any measure they immediately resign. This, in my opinion, would do away with such actions as we have seen enacted in Congress during the past session because they would have to stick by the party in order to retain their power for the minute the party is defeated, a new election would be called.

"In regard to the South, it seems that the Northern manufacturers have gone out of their way to advertise the Southern mills to such an extent that it has brought them into the limelight.

"I am not one of the men who think that the cotton industry has all got to move South. You may not know it, but I think most of you do, that some of the mills in the South have cost over $65 per spindle, and the taxes in the South are bound to increase, as they cannot go on forever free from taxation.

"Furthermore, as the employees begin to take advantage of the good roads that are being built throughout the Southern States, they are going to demand shorter hours of labor, and when they do, the temporary advantages that the South has today will be gone.

"It does not do any good to go around with crepe hanging about ourselves, bemoaning and talking of the advantages of the South.

"In my opinion, what is needed is for us to dig in, and try to reduce our costs to such an extent that we can compete. I do not propose to tell just how you can do this, but with an even break, I feel that we can get along.

50 of 54 Hours a Week.

"Undoubtedly, if we had a national labor law which gave all the States a fair chance, that would be the best solution. I also think that if labor and capital would see their way clear to go back even to 50 hours per week, although I honestly believe 54 hours per week is not asking too much, it would be a step in the right direction.

"For instance, if we could get 50 hours it would mean an increase of four per cent in our production and that would mean a whole lot in our costs. This would give us 5 hours in the morning and 4 in the afternoon for 5 days, and 5 hours on Saturday.

"No doubt I will be criticised for making this suggestion, but I really believe it would help some, although a national law would be one of the wisest things we could have.

"Take, for instance, the present 48-hour law in Massachusetts. The time taken out for washingg up means more than 20 to 30 minutes per day. This, in my opinion, is wrong, and furthermore, it is not a square deal for all the operatives, as those working by the piece have either got to keep their machinery running, or lose that amount of time, while the day help do not lose anything, as they are paid for the full 48 hours.

"I recently read an article by H. W. Lee, of the British Fine Cotton Spinners' and Doublers' Association, Ltd., of Manchester, England, in which he states that he is very much worried over the increase in the overhead in reducing the hours per week from 55½ to 48. He views this reduction with a great deal of apprehension, and says it is a problem that cannot be hurried, and only time and good will on both sides can solve it.

"It seems that we have gone ahead altogether too fast, and, in my judgment, it is a matter that calls for serious consideration, and should not be decided hurriedly. The amount of money invested in the cotton mills today is so great that they must be operated enough hours per week to make them pay, and you cannot do this without getting a certain production, for if this is not done, your overhead is so large that you cannot get a new dollar for an old one."

Mr. Burton closed his address with some verses about "Getting Mad and Digging In."

British Using Egyptian Cotton.

Figures published during the week show that during the year ending January 31, 1924, five million British spindles had been changed over from other cotton, mostly American, to Egyptian. The British manufacturer has felt severely the competition of the Southern States, of India, and of Japan, on coarse yarn goods, and has found some escape from it in finer yarn fabrics, largely of fancy character. At the present time the style situation is just as mystifying over there as it is here, and probably most of these spindles would come back on American cotton were a large crop and lower prices possible.

Great Britain and most of the European countries report fair in good activity in cotton manufacturing at present, with buyers generally limiting purchases to actual wants, but stocks of goods comparatively small. The exception is Germany, which has had a bad financial setback the last couple of months, and the textile industry has suffered both in the way of home and foreign orders with considerable decrease in cotton consumption.—From Bulltein of Hunter Mfg. and Com. Co.

SUPERINTENDENTS AND OVERSEERS.

We wish to obtain a complete list of the superintendents and overseers of every cotton mill in the South. Please fill in the enclosed blank and send it to us.

_____ 1923

Name of Mill _____

Town _____

_____ Spinning Spindles _____ Looms

_____ Superintendent

_____ Carder

_____ Spinner

_____ Weaver

_____ Cloth Room

_____ Dyer

_____ Master Mechanic

Recent changes _____

Index To Advertisers

Where a — appears opposite a name it indicates that the advertisement does not appear in this issue.

Gossett Says Retailer to Blame.
(Continued from Page 14)

now beginning to realize this, as curtailment has become widespread and is gradually increasing. The result is that a vacuum is gradually being created which some day will have to be filled. When this occurs the retailer will find himself short of goods and in the scramble prices at the mill are liable to be forced higher than is desirable in the interest of healthy business.

"It is claimed by many that the present hand-to-mouth buying policy is here to stay. There is no foundation for such statement. Such a policy can and will last only as long as the mills continue to overproduce, resulting in an accumulation of stocks in first hands to which the jobber and retailer can turn at a moment's notice to replenish their supplies. As soon as it becomes manifest that through curtailment these stocks are becoming exhausted and prices begin to rise it is inevitable that the trade will place orders ahead to cover their requirements in order to be sure of getting the goods.

German Textiles Depressed.

A depression has become apparent in the German textile industries since April, according to a cable received from Edward T. PiPckard, chief of the Textile Division, Bureau of Foreign and Domestic Commerce. Selling prices which are substantially above world market levels are severely restricting export sales, and inland buying which until recently has alone sustained the industry, is now diminishing. An improvement in the situation depends upon the ability of manufacturers and distributors to reduce the unwarranted margin between production costs and selling prices. Although the average textile wages are 20 to 40 per cent below pre-war rates, cloth prices are 80 per cent higher. The German Government has undertaken an investigation to ascertain the cause of this disparity and whether the prices now charged are justified by factors, other than wages, which enter into manufacturing costs. Although the textile industry is harassed at present by an acute credit streingency and extensive current commitments, the financial position of the mills is fundamentally satisfactory due to the extinction of its capital obligations and funded indebtedness through currency depreciation. The foregoing applies to wool, cotton, knit goods and general textile lines. Raw cotton sales have been small and many merchants are reselling surplus stocks. Stocks of cotton cloth are low and prices consequently continue firm.

French Find Sales Difficult.

Cotton spinning and weaving plants report conditions normal but sales difficult. On account of exchange and price fluctuations, the industry is buying against current needs only.—Cable from Assistant Commercial Attache John F. Butler, Paris, June 9.

Cotton or the Boll Weevil

After food cotton is the one commodity the need for which in human existance is almost universal. Anything that effects cotton either in the way of supply or distribution, touches the world to the utmost point of circumference. History is making just now in the cotton market; in fact, history has been making in cotton ever since the boll weevil crossed the border line of Mexico and invaded an area which has been recognized as the greatest cotton producing section of the world.

It is strange that currents of trade and the degree of human comfort should be thus strongly influenced by an insect pest so insignificant in size as to be scarcely envisioned. This is not the first time in the world's history, however, humanity has been stopped in the steady progress of affairs by causes so small. Scientists tell us that the real war of the world, a struggle almost for existence, is that between insect and man. Unchecked and unrestrained, insect life would literaly overwhelm humanity, to the destruction of civilization itself. The passing of Greece and the fall of Rome have been attributed to a thousand different circumstances, but the practical scientist of to-day does not laugh at the theory that these empires perished or lost their prestige because of low vitality traceable to the ravages of the malarial mosquito. It is safe to set down this theory as partly true.

Coming back to cotton, which for the moment represents the greatest illustration and one that is likely to be most costly in the consequences so far as damage of insects origin is concerned, the world will have to pay more attention to what is happening in this commodity than it has been pleased or willing to do so far. The world may for the moment avoid the consequences by using a little less cotton than otherwise would got into consumption. Indeed, trade statistics indicate that this is already the case. The law of supply and demand with price affiliations accounts for the application of this first of all to be tried remedy. How far this remedy will apply is doubtful. It can be used only to a limited extent before the need of other resources becomes apparent or necessary. The unsatisfied demand for a commodity, particularly one heretofore sectional in origin, means a sharp price advance. It also brings its own ameliorating factor, in the common human impulse to take advantage of a suddenly more profitable market. In a word, such a condition inspires mankind to an effort to supply demand at an increasingly higher level of profit. This we are witnessing now in the attempt to promote cotton production in parts of the world where heretofore cotton has not been regarded as a natural crop, and to increase the production in other sections where cotton has been raised indifferently or without specialization.

There is no use denying that the world is doubtful of America's ability to continue as the chief source of supply of cotton in the future. The International Federation of Master Cotton Spinners and Manufacturers' Association, including a large majority of the spindles and looms of Europe, have recently made a report on this subject which is important. "We are now faced with a pest," says this Association, "that is very likely to cause the cotton industry of the world to run on short time for years to come, i. e., until new fields in other countries have been developed on a proper commercial scale." The conclusion of investigators in which the Association places much faith is that a real remedy for the boll weevil pest is yet to be discovered and that American cotton production will entail two or three times the expense of African or South American figures. The committee records the deliberate judgment that it is probable that within very few years the size of the American cotton crop will hardly suffice for the requirements of the United States mills.

There is no higher authority in the United States on Southern conditions than the Federal International Banking Company of New Orleans, an institution founded and owned by a large number of Southern banks, and it may be worth while also to state what this large financial concern has to say. The bank can be quoted as follows:

"Viewing the whole field, it is not too much to assume that if the United States do not succeed in furnishing the needed supply of cotton by controlling the boll weevil, the high prices resulting from the present situation will within a generation, if not within a decade, establish cotton growing in other regions upon a cost basis far below that now imposed by boll weevil damage."

This may be taken as a gloomy picture, but bright spots appear here and there. For one thing it is scarcely likely that civilization and science at their present stage will throw up their hands in defeat over a problem that has appeared so recently as to have furnished insufficient time for solution. The world is large, and it is folly to assume that Nature intended a comparatively small section to be the single source of one of man's chief necessities. What will happen in Africa, in South America, in Australia and in Asia when the insatiate demand for cotton continues is something that cannot be predicted with absolute certainty. The chances are that cotton will come forward in a quantity sufficient to meet the world's needs. Temporarily, cotton spinning regions and industries may feel the creation of a partial vacuum through scant supply. This condition will pass, once the world awakens to the fact that large profits await the grower of the cotton plant. Particularly will this prove true when we consider that the margin of profit will not be measured altogether on the scale of high cost of production prevailing in Anglo-Saxon countries and Dominions, but will be determined rather by low scale wages and living conditions of people less advanced in human progress.—Journal of British Chamber of Commerce in U. S. A.

The Modern Spinning Frame As Compared to the Old Frame

(Continued from Page 8)

their condition more uniformly and satisfactory than the softer roll, and are not subject to the scratches often seen on the rolls from cutting off lap-ups. They are made as regular and as true, if not even more so, than the original roll.

This roll has grown in such favor that there is hardly a mill that buys new equipment that does not specify case hardened front line bottom rolls, and there has grown today, a very large business of replacing worn rolls with new case hardened screw jointed rolls.

Recently a mill man said that he was replacing rolls in some frames that were not so very old, because the manufacture of rolls had improved so much in the last few years, that he believed it was to his advantage to make this change. He claims that the rolls, in the condition which they are worn, rounded on the edge of the flutes too much, requires excessive weighting, and even then do not draw evenly, and that he cannot get the speed and the production.

Saco-Lowell Weaver's Knot Tyer

(Continued from Page 13)

sure perfect accuracy. This careful attention to the protection of parts from dirt and abuse, to the use of the lightest and strongest materials, careful and accurate machine work, combine to produce an instrument that is strong, compact and light, durable and rugged. It weighs only 5½ ounces. Requiring no skill on the part of the operative, beyond following the few simple instructions, it ties a perfect weaver's knot, and cannot be made to tie any other kind of a knot.

The use of the Saco-Lowell weaver's knot tyer will help to increase production and reduce costs in weaving and knitting, and will improve the quality of the goods.

Whiting Spinning of Today Vs. Yesterday

(Continued from Page 9)

our design, the accuracy of our workmanship and the aiding of the work of the spinner, giving the mills the quality and the economy in operation on which so much depends today.

Dullness American Section of Lancashire Spinning

The section of the Lancashire cotton industry spinning American cotton reports little change recently. Since Easter there has been a marked dullness. The 26¼-hour production is generally sufficient to supply the demand, but a shortage is becoming apparent in some lines of goods while stocks are accumulating in others.

About 10 per cent less American cotton has been delivered to British spinners thus far this year than during the corresponding period of 1923. This deficiency has been made up by the substitution of other growths.

Concern is expressed in Manchester over the prospect of a 20 per cent reduction in the area this year devoted to Sakellaridis cotton in Egypt.

The Indian demand for cotton cloth is not satisfactory to the British manufacturers. The Chinese are not in the market except for special lines, such as brocades, which form a relatively small portion of their imports, and have no great significance. The gross profits on fine cotton goods shipped to the United States are said to have been very small, and new orders are reported as becoming scarcer. — Commerce Reports.

The Bear

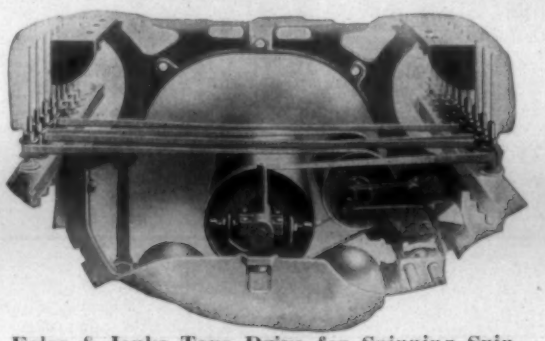
Southern cotton farmers have never had occasion to love the bear operator, nor for that matter, has the industrial and commercial world in particular. And the more we learn of the bear and his ways, the less respect we must have for him. What is the "bear," and how does he operate? He is a professional trader, "short of the market." There are but a few thousand of him against more than 15,000,000 shareholders and bondholders, whose investments it is his business to pull down. His operations have a baneful effect, therefore, upon all industry and all commerce and all agriculture. The more definite information is provided by the Wall Street Journal that when a professional gives out a bearish interview and refers to disaster to come everyone knows that he is not doing it for love of the public but for profit to himself. He cannot expect to gain unless the public sells and the greater the sacrifice of public held securities the greater his profit will be. His object is to destroy confidence, close factories and throw thousands out of work. He circulates propaganda in order to force timid traders to sell their stocks and thus facilitate covering of short commitments. The public looks upon the bear operator as more or less of a parasite that keeps gnawing at the vitals of business.

The Wall Street Journal, having told us about the bear and the manner in which he operates, is invited to go a step further and tell us how the country may be rid of him.—Charlotte Observer.

Improvements in Ring Spinning Frames

(Continued from Page 7)

are designed and built to provide a rigid substantial frame, securely held together and stiffened by ribbing and bracing; a simple frame of attractive appearance, easy to clean and oil; a convenient frame, retaining the Fales & Jenks standard draft and twist gearing arrangement; an adjustable frame easily levelled and adjustable for different traverse lengths. New model frames are "box-head" type with integral cross rib inside the head, hinged doors above the rib with removable panels below. Bearings inside of head can be oiled from the outside. Safety devices are furnished which automatically lock doors and draft gear covers when frame is running. Head, foot and center supports have adjustable feet with enclosed jack screws. Gears have wide face cut teeth. Draft gears are fine pitch. other gears coarse pitch. Heart motion has worm and gear accurately cut and hobbed. New model frames may have belt or motor drive with direct gear or chain motor connection.



Fales & Jenks Tape Drive for Spinning Spindles, showing patent sliding tension device with self contained lever weight.

Number Fifteen.

(Continued from Page 10)

then go through conveyors to the picker room and this room should have enough bins to stay at least 24 hours run ahead so that the cotton can dry and air out, which will give a more even lap and yarn than if taken out of the bale and fed through the breaker. In the latter case it would go through the machines in chunks and the beaters would not do as good work, injuring the fibre and causing more chokes, broken gears and head blocks and requiring more horsepower than when the cotton was fed through a vertical opener.

The vertical opener helps clean the cotton and the pickers and cards do better cleaning and better work results throughout the mill. A picker equipped with a 7½ horsepower motor saves overhead and gets better production.

Cards should be equipped with vacuum strippers and they save clothing and clean the cards better and the cards are not stopped so long as you can cut down production gears from one to two teeth so that the cards will do better work and you can lighten the card sliver and get a shorter draft through the mill which I find makes the work runs better and makes stronger and more even yarns.

Drawing frames should be equipped with metallic rolls. This saves the expense of covering the rolls and they pull better than the leather covered rolls. The latest improved drawing frame knock-off motion works better and prevents a lot of single and light sliver from going through, which would cause uneven work. The drawing frames are among the most important machines in the mill. If you make bad work at these frames it will cause bad work all through the mill.

On the old style fly frames the gears and bearings become worn and cause breakdowns and bad places in the roving and tangled roving which runs up expenses and causes loss of production.

I have run the belt and band driven spinning frames and the individual chain drive and tape driven frames. I find I can get better r sults with the chain and tape drives. Belts will slip and cause loss of production and if you get them too tight it will burn out the bearings and the bands will wear grooves in some of the whirls. That makes some of them small in diameter and others large and the bands get slack and make soft yarns and you cannot get an even twist and you also make a lot of waste. The chains and tapes do not slip. Wide gauge frames are best for you have no separators to contend with as the separators are always in the way of the spinners and doffers and the frames run heavy and require more power.

I have run old machinery that had 208 spindles to the frame and paid 27 cents a side. Spinners ran four and six sides. I have also run jobs where they had the latest improved frames with 240 spindles and paid 20 cents a side and the spinners ran 8 to 12 sides. So the spinners and company both made more money. Spinning should have hank clocks and the doffers should be paid by the hank, as you can get doffing done cheaper and the doffers will make more money and you

can get better doffers, for the doffers will help keep the frames running.

The filling build is better than the warp build and you can run a longer traverse and get more yarn on bobbins, which saves doffing and gets better production.

Use the tension guide on spoolers. If the traverse stops and tangles the yarn it can be straightened out without so much waste. On the warp building, if the traverse stops and tangles the yarn you have to cut or pull it off, which makes waste instead of yarn.

The market demands good yarns and you have to have good machinery to make them and keep the machinery overhauled and in first-class condition, which makes it run better and last longer.

BILL.

Scientific Side of Industry

In his presidential address at the annual meeting of the Textile Institute at Manchester on April 30th, John Emsley, J. P., said the more they studied the scientific side of the industry the more they were convinced that they were only on the fringe of developments that science had to solve. There was no royal road to make nature give up her secrets. Study, patient investigation and hard work were the only possible means of making the progress they so much desired and were striving for. To begin their investigations of cotton they had to study the soil itself to find out what bacilli was in it to allow them to raise the plant, and they had to follow it all through its growth. They had to use science to see where the conditions of climate were most suitable to bring it to full bearing power, and when it was growing to see where they could improve it by crossing the various strains. Having got their raw materials they had new problems to face. How to make the most of them was the work of thousands of people who lived by making the raw material into the finished article. Their business as a Textile Institute was to co-ordinate all the stages through which the material passed. If a mistake was made in any process untold loss might follow. If they could develop or improve a process they made a gain for the world. Having made their material into a usable article they still had to beautify it so that it would be attractive and useful, and there again science was always at grips with nature, wringing from her colors that were beautiful and permanent. When they had got their cloth ready science was required to transport it to the user. These were a few of the complications they were working on at the present time, and their ideal was to grow the raw material, manufacture it, beautify it and distribute it to the ends of the earth. They wanted their goods as cheap as they could get them, but none of them wanted them cheap by sweating either grower, maker, dyer, distributor or consumer. They had got to always keep in mind that human toil was put into every process from the time they first began with their raw material to the time that the consumer got it.

They had to recognize that their duty was by scientific research to see that the human element through all the processes was adequately recompensed, and that all the conditions under which these processes were carried out were done so with the least possible injury to health and with the least possible physical exertion. Science could and would help them there a great deal. They were all determined that conditions of all labor should be helped by scientific investigation.

He looked forward to the day when each section of workers would think of the section who were going to handle the material they had dealt with, because in every process the finished process of their section was only the raw material of the next, and if the process they sent forward was well done the next section would be able to do their work better and with less exertion. These were developments that a few years ago in the textile industries were in the nature of experiments, but were now commercial propositions (such as art silk), and if developments had been made others would come along. To enable them to reap the greatest benefit from their industry they must have their workers educated not only in the primary subjects but also in such a manner that they could reason and thereby make their work instead of drudgery a pleasure. They could never get the best out of life unless they lived amongst beautiful things, and they must not only utilize science to make their livelihood but also to make their life a pleasure. One of the greatest things he was looking forward to was that their cities where they had to spend their lives should be made beautiful. The smoke and grime that at the present time made town life so drab must be tackled. Work at the best was for many drudgery when in good health, but when to drudgery was added ill-health, then it made for discontent, and one's outlook on life was warped. Those who had to conduct great businesses knew that discontent made for bad work, and the ambition in the future would be to make the factory a place to which they would go with pleasure. Welfare work, heating, lighting, sanitation, ventilation were as truly scientific subjects as were the problems of materials, because if these were made better they produced better and with less loss of phlsical energy. It had been his great desire ever since he was given the position of president to raise the status of the textile industry to a profession, and his great desire was to see a strong body of scientific gentlemen working for the uplifting of the textile trade. They had got their Royal Charter now before the Privy Council, and he hoped before long that the first step would have been accomplished. when they could go all out to make their teachers, professors and captains of industry feel that they were being recognized for the valuable services they were rendering to the world at large. — Oldham (Eng.) Journal of Commerce.

Cotton Goods

New York.—There was little change in the cotton goods markets last week. Unfinished lines held steady through the week with moderate sales reported and in a few instances contract business was put through. There was a fair amount of business in fine cottons. Prices continued low and most sales for the week were done on a basis that is below present costs of production. Curtailment showed a further increase for the week, and is now estimated at 75 per cent of normal capacity.

New prices were named on some lines of wide sheetings, but failed to stimulate business. Trading in ginghams, percales, prints and bleached goods continued on a hand-to-mouth basis.

The market for print cloths and sheetings was quiet as the week ended. There was some trading in scattered lots, but no important sales were made. There was a slightly better demand for drills for export account and some improvement in the call for narrow print cloths. Sales of 25-inch 56x44s were reported on a basis of 4⅞ cents. The orders for drills for export came from South America. Sales of osnaburgs were reported at 16 cents for the 40-inch 7-ounce goods.

Business on broadcloths for deliveries running into August showed some increase and there was some improvement in the demand for fine convertibles for special purposes.

The tire fabric situation showed little change. Coon duck markets were slow, with moderate sales of enameling duck and a steady but limited market for army duck.

In the converting trades, business on staples was very slow and practically all trading is confined to the specialty lines.

Spots of 40-inch, 72x68, 9.50 yard combed lawn sold at 12 cents; 40-inch, 76x72, 9.00 yard combed lawn at 12½ cents.

Spots of 80x56 Tussahs sold this week at 23 cents. The raw silk market has been very firm, following recent advances, and the quotations on Tussahs and Canton goods have been advanced about one-half cent by most mills who had been taking business at the recent low prices. The suggestion was that it might be necessary to pay 22 cents for 80x56 Tussah contracts.

The Fall River print cloth market has continued quiet throughout the week, with practically no change in prices nor increase in total sales from the previous week. It is even doubtful if the sales for the entire week will total in excess of 30,000 pieces.

As for several weeks past the main inquiry has been for the 36-inch low counts for spot or nearby delivery, though some demand has developed for the 25-inch low counts for early delivery. The wider print yarn cloths, sateens and twills have been dormant. The same is true of print cloth yarns generally.

John V. Farwell Company, Chicago, says in its weekly review of trade: "Increased confidence in the general business situation is evidenced by retailers' change in attitude in making commitments for dry goods lines. Although volume of sales is less than during corresponding week of last year, orders are covering a wider range. Cotton and cotton print cloth markets are stronger. Wide sheeting prices made by mills have stabilized that market for at least three months. Chicago wholesale dry goods houses are preparing this week for their semi-annual pre-inventory clearance sale, Monday and Tuesday, June 23 and 24, which should bring a large number of buyers to this market. Collections continue to improve.

Cotton goods prices were as follows:

Print cloths, 28-inch 64x64s, 7⅜ cents; 64x60s, 7⅛ cents; 38½-inch 64x64s, 9⅜ cents; brown sheetings, Southern standards, 16 cents; denims, 22 to 24½ cents; tickings, 26 cents; prints, 9¾ cents; staple ginghams, 15 cents; dress ginghams, 21½ to 24 cents.

Belgian Textile Trade.

In cotton fabrics, domestic consumers are not disposed to pay prices based on current yarn quotations. Some weavers are quoting below the current base prices in order to move out mill stocks, but this practice simply delays the necessity of higher prices to consumers. The export market is wholly dependent on future rates for sterling—Acting Commercial Attache Samuel H. Cross, Brussels, May 24.

The Yarn Market

Philadelphia, Pa.—The week brought no new developments in the cotton yarn situation. Prices were somewhat irregular, but generally held firm with a somewhat stringer undertone than during the previous week. Spinners are convinced that when yarn buyers finally come into the market for their requirements, they will not only have to meet mill prices, but advancing prices as well. At present, yarn prices are several cents below the cost of production and there seems little likelihood of cheaper cotton later.

There was a slightly better demand for coarse carded yarns at the end of the week. Several merchants reported that 47 cents was the best price they could get spinners in the South to quote 20-2 carded warp, although spot sales were reported in this market at 44 cents and in some cases slightly lower.

Combed yarns contiued dull, with little interest shown by buyers. Prices remained at approximately the same levels that have been noted for the past several weeks.

Sales reported made to the heavy webbing trade include a lot of 5,000 pounds of white carded plied 8s at 39½c and about 10,000 pounds of carded 10s two-ply, white stock, at 41½c. An order for a small stock lot of 8s three-ply tinged carpet yarn was reported consummated on a basis of 35c. The wire trade was reported inquiring for lots averaging from 30,000 to 35,000 pounds each of plied 8s 10s 12s and 30s tinged insluating yarns.

The claim is made that there is relatively little stock yarn in the market and that the sales at these low prices are so small as to ahve no influence on prevailing market values. It has usualy been the case, nevertheless, that the lowering of the price levels on sales of stock yarns has been followed by a general downward revision of all yarn rates.

Yarn prices were reported in this market as following:

Two-Ply Chain Warps.

2-ply 8s	42	a	2-ply 24s	47½	a
10s	43	a44	2-ply 26s	48½	a49
12s to 14s	43½	a44½	2-ply 30s	50	a
2-ply 16s	44½	a45	2-ply 40s	58	a59
2-ply 20s	45	a	2-ply 50s	67	a

Two-Ply Skeins.

8s	41	a	40s	56	a
10s to 12s	42	a43	40s ex.	61	a
14s	43½	a	50s	67	a
16s	44	a	60s	74	a
20s	44½	a	Tinged Carpet—		
24s	47	a48	3 and 4-ply	35	a
26s	47½	a48	White Carpet—		
30s	49	a50	3 and 4-ply	39	a40
36s	55	a			

Part Waste Insulating Yarn.

6s, 2-ply	34	a	12s, 2-ply	39	a
8s, 2, 3 and 4-ply	34	a	20s, 2-ply	42	a
10s, 1-ply and 2-ply	37	a	26s, 2-ply	46½	a
			30s, 2-ply	49	a

Duck Yarns.

	3, 4 and 5-ply—			3, 4 and 5-ply—	
8s	40½	a	16s	44	a
10s	41½	a	20s	44½	a
12s	42½	a			

Single Chain Warps.

10s	42½	a	24s	47½	a
12s	43	a	26s	48½	a
14s	43½	a	30s	50	a50½
16s	44	a	40s	58	a59
20s	44½	a45			

Single Skeins.

6s to 8s	41	a	20s	44½	a
10s	41½	a	24s	47½	a
12s	42½	a	26s	48½	a
14s	43	a	30s	50	a51
16s	43½	a44			

Frame Cones.

8s	41	a	22s	45	a
10s	41½	a	24s	46½	a
12s	42	a	26s	47	a
14s	42½	a43	28s	48	a
19s	41½	a	24s	46	a
18s	44½	a	30s tying in	47	a49
20s	45	a	40s	58	a59

Combed Peeler Skeins, Etc.

2-ply 16s	60	a	2-ply 50s	75	a
2-ply 20s	63	a	2-ply 80s	78	a82
2-ply 30s	66	a	2-ply 70s	92	a
2-ply 36s	68	a	2-ply 80s	1 05	a
2-ply 40s	70	a72			

Combed Peeler Cones.

10s	50	a51	30s	63	a65
12s	51	a52	32s	63	a65
14s	52	a53	34s	65	a67
16s	53	a54	30s	68	a69
18s	54	a55	38s	69	a70
20s	55	a	40s	70	a72
22s	55	a56	50s	75	a78
24s	56	a56½	60s	80	a85
26s	56½	a57	70s	90	a95
28s	57	a58	80s	1 00	a1 05

Carded Peeler Thread Twist Skeins.

20s, 2-ply	50	a	36s, 2-ply	60	a
22s, 2-ply	51	a	40s, 2-ply	59	a
24s, 2-ply	53	a	45s, 2-ply	69	a
30s, 2-ply	55	a	50s, 2-ply	73	a

Carded Cones.

10s	44	a	22s	50	a
12s	45	a	26s	53	a
14s	46	a	28s	54	a
20s	49	a	30s	56	a

India's Foreign Trade in Textiles During April

The Indian piece goods market is dull. April imports of cotton cloth, however, aggregated 148,849,000 yards compared with 132,819,000 in March. India's purchases during April of 69,296,000 yards of grey goods and 49,272,000 yards of bleached cotton cloth were considerably higher than those of March, which were 61,940,000 and 42,334,000 yards, respectively. Only a slight improvement occurred in colored goods, April imports being 30,281,000 yards against 28,545,000 in March.

Great Britain supplied 93 per cent of the grey (unbleached) goods, 98 per cent of the bleached, and 90 per cent of the colored cloth imported during April. Japan furnished 6 per cent of the grey cloth; Switzerland 1 per cent of both the bleached and colored; and Italy is credited with 1 per cent of the colored.

April exports of cotton from India amounted to 62,304 tons, a decrease of 29,411 tons from the March figure. The price of Indian cotton declined from 588 rupees per 784 pounds on April 30 to 573 rupees on May 30. (The exchange value of the Indian rupee was $0.3077 on April 30 and $0.3041 on May 29.)—Commerce Reports.

Want Department

Wanted

Well equipped Southern Mill on coarse goods desires to engage services of high-grade Superintendent. Reasonable salary; good opportunity. Furnish full particulars and references with first letter. Don't apply unless you are able to prove your qualifications by past experience. Address J. M. S., care Southern Textile Bulletin.

Machine Shop Excellently Equipped

With
Turret and Engine Lathes
Gear Cutters
Milling Machine, etc.
Solicits Contract Work

We manufacture Automobile Fly Wheel Gears and distribute them.

J. ZAGORA MFG. CO.
1225 S. Mint St.
Charlotte, N. C.

For Sale

1 Keeler Horizontal Return Tubular Boiler, 90 H. P., 60" diameter, 17 feet long. To carry 100 lbs. pressure. The Randolph Mills, Franklinville, N. C.

Wanted

To buy Roller Covering Shop. Write Montgomery Roller Covering Works, Montgomery, Ala.

Wanted

A napper machine second hand. One who can operate and fix Woonsocket nappers. Must be a good napper tender and be willing to work hard for success. Good position for the right man. First-class mill; one of the best cities in the South. Address C. M. G., care Southern Textile Bulletin.

FOR SALE

Shafting At Half Price

With Hangers for Same

No.	Diam.	Length
1	2 3/16 in.	8 ft. 10 in.
1	2 7/16 "	20 " 0 "
1	3 7/16 "	17 " 7 "
1	2 3/16 "	15 " 7 "
1	2 7/16 "	19 " 7 "
1	2 11/16 "	9 " 0 "
1	2 7/16 "	20 " 0 "
1	1 15/16 "	6 " 6 "
1	2 5/16 "	8 " 10 "
1	2 11/16 "	8 " 8 "
2	1 15/16 "	6 " 6 "
1	1 15/16 "	6 " 3 "
1	2 7/16 "	11 " 4 "
1	2 15/16 "	10 " 0 "
1	2 3/16 "	18 " 0 "
1	1 15/16 "	15 " 0 "
1	2 7/16 "	6 " 11 "
1	2 15/16 "	10 " 6 "
1	2 7/16 "	10 " 0 "
1	2 7/16 "	6 " 2 "
1	3 3/16 "	13 " 7 "
1	3 3/16 "	5 " 9 "
1	2 15/16 "	9 " 6 "
1	2 7/16 "	10 " 3 "
1	2 7/16 "	10 " 0 "
1	2 7/16 "	20 " 0 "
1	2 3/16 "	10 " 6 "
1	4 15/16 "	24 " 4 "

THE RANDOLPH MILLS, Inc.
Franklinville, N. C.

Superintendent & Manager Wanted

A small town contemplates the establishment of a mill with 80 jacquard looms 72 to 96 inches wide. They will manufacture damask and crinkled quilts from yarns which they will buy. All machinery, buildings and equipment will be paid for in full. A man experienced in weaving such goods and who can take and pay for $5,000 of stock is desired as manager and superintendent. Do not write unless experienced on these goods and able to pay cash for stock.

Address "Specialty Mill," care Southern Textile Bulletin.

ECONOMY COAL

STEAM and DOMESTIC COALS
FROM OUR OWN MINES
New River and Pocahontas
High Volatile Splint and Gas

Sugar Creek Coal Sales Company

Richmond, Va. Mt. Hope, W. Va.

UNIVERSAL WINDING CO.

BOSTON, MASS.

Manufacturers of Textile Winding Machinery

Winding machines for single and ply yarns, cotton, woolen, worsted and silk. Write for circular describing the NEW WIND DOUBLER, also the No. 80 for winding SUPERCONES.

CHARLOTTE OFFICE
804 Realty Building
FREDERICK JACKSON

FACTORY OFFICE
PROVIDENCE, R. I.

—Agents—

FURNACE LININGS!

Now is the time to overhaul your furnace linings and rebuild your arches with the use of

BETSON'S PLASTIC FIRE BRICK

Lasts longer—
Easier to apply—
Costs less
Utilize your spare labor now

Carolina Specialty Company
Agents in the Carolinas
Charlotte, N. C.

Ring Traveler Specialists

U. S. Ring Traveler Co.

159 Aborn Street, PROVIDENCE, R. I.

ANTONIO SPENCER, President **AMOS M. BOWEN, Treasurer**

WM. P. VAUGHAN, Southern Representative
P. O. Box 792 **GREENVILLE, S. C.**

U. S. Ring Travelers are **uniformly tempered** which insures even-running spinning. They are also correct as to **weight** and **circles.** Quality guaranteed.

RAW STOCK DYEING

We Specialize on Fast Colors
We reclaim burnt and damaged cotton
Prompt Service

SANDERS, SMITH & CO.
Charlotte, N. C.

KNOXALL ROLLER CLOTH

(Virgin Wool)

Edward H. Best & Company

222 Purchase St.
Boston, Mass.

EMPLOYMENT BUREAU

The fee for joining our employment bureau for three months is $2.00, which will also cover the cost of carrying a small advertisement for one month.

If the applicant is a subscriber to the Southern Textile Bulletin and his subscription is paid up to the date of his joining the employment bureau the above fee is only $1.00.

During the three months' membership we send the applicant notices of all vacancies in the position which he desires.

We do not guarantee to place every man who joins our employment bureau, but we do give them the best service of any employment bureau connected with the Southern textile industry.

WANT position as superintendent or will take place as overseer, carding spinning or weaving, prefer weaving. Now employed in good North Carolina mill, but wish to change for better place. Best of references. No. 4135.

WANT position as overseer carding in good sized room. Prefer Georgia or Alabama. Eighteen years as overseer in good mills. Now overseer in large mill but have good reasons for wishing to change Age 48, have family, have good textile education and can run the job. No. 4136.

OVERSEER carding, now employed, wishes to make change. My experience and training fit me to handle large job in good mill. Good manager of help, first-class references as to character and ability. No. 4137.

WANT position as superintendent yarn mill of 10,000 to 15,000 spindles. Age 46, married, long practical experience, 12 years as superintendent. Now employed but have good reasons for making change. References. No. 4138.

WANT position as slasher tender or second hand in spinning. Well qualified for either place. Best of references. No. 4139.

WANT position as roller coverer. Am expert in roller covering and can demonstrate my ability in short time. Now employed in good mill. Want to correspond with mill needing man of unusual ability. No. 4140.

WANT position as overseer of carding. Long experience in handling a combination of both rooms and can get excellent results. Good references. No. 4148.

WANT position as electrician with good mill or some other manufacturing plant Have had 15 years' experience. Can furnish excellent references. No. 4149.

WANT position as superintendent, or would accept place as carder or spinner. Practical man of long experience as both superintendent and overseer. Best of references. No. 4150.

WANT position as overseer carding or spinning, or master mechanic and electrician. Employed at present but have good reasons for making a change. Can come on ten days' notice. First-class references. No. 4151.

WANT position as overseer carding and spinning. Am 44 years old and have had 20 years' experience as overseer and assistant superintendent. Can furnish best of references. No. 4152.

WANT position as overseer plain weaving or overseer cloth room. Have had more than 25 years' experience on practically all kinds of goods. Am qualified to handle either position. Age 46, have family. Best of references. No. 4153.

WANT position as overseer spinning. Have had long experience in the spinning room and have taken a course with the I. C. S. Good references. No. 4154.

WANT position as overseer of slasher department. Age 32, eight years' experience as slasher and beamer. Good references. No. 4154.

WANT position as overseer weaving. Long experience on wide variety of fabrics and am capable man in every respect. Good references from past and present employers. No. 4156.

WANT position as superintendent of tire yarn or fabric plant, or fine combed yarn mill. Now located in East, but have had 6 years' experience in South. Long term of services superintendent and overseer and am reliable man who can get excellent results. Excellent references. No. 4157.

WANT position as overseer cloth room. Long experience on lawns and sheetings and can guarantee satisfaction. Good references. No. 4158.

WANT position as overseer of small card room or second hand in large room. Am also excellent card grinder. Long experience in good mill. A-1 references. No. 4159.

WANT position as superintendent. Have had 18 years as such and am now employed in my 19th year. Can handle yarn or cloth mill and am high class, practical man. No. 4160.

WANT position as overseer carding or spinning, or both. Past experience and training fits me to handle job in efficient manner. Good references. No. 4161.

WANT position as overseer spinning, or overseer weaving. Long experience in good mills in both departments. Reliable, steady man of good habits. Excellent references. No 4162.

WANT position as master mechanic. Now employed. Experienced in both steam and electric plants and can handle work in satisfactory manner. Good references. No. 4163.

WANT position as overseer spinning. experienced for many years on both carded and fine combed yarns. Would like to correspond with mill needing high-class man. Excellent references. No. 4164.

WANT position as overseer weaving. Experienced on many different fabrics and am competent and reliable. No. 4165.

WANT position as superintendent. Fitted by training and experience to handle large mill in satisfactory manner. Good references. No. 4166.

WANT position as superintendent; yarn mill preferred. Now superintendent of good yarn mill and have held job for over two years. Giving entire satisfaction. Thoroughly understand carding and spinning. 15 years as superintendent and overseer. Good references. No. 4167.

WANT position as superintendent of cloth mill. Long experience and can give references from many mill executives to show excellent record of past service. No. 4168.

WANT position as superintendent of yarn or cloth mill. Now employed as night superintendent but wish day job. References to show ability character and past record. No. 4169.

WANT position as superintendent or will take overseer's place in any department. Thoroughly qualified to handle any room in the mill. Best of references. No. 4170.

WANT position as superintendent or carder and spinner. Will go anywhere. Prefer yarn mill of 5,000 to 30,000 spindles. Can come at once. Best of references. No. 4176.

WANT position as carder or spinner. Ten years' experience in carding, spinning and winding. Now employed, but will change on short notice. Age 37, with family. References from present and past employers. No. 4172.

WANT position as superintendent. Practical man, good pusher, can get quality production on all classes of yarns. Good references. No. 4173.

WANT position as overseer spinning. Practical man of long experience on practically all yarn counts made in South. Good references. No. 4174.

WANT position as overseer spinning. Have had 20 years' experience in spinning, spooling and warping in some of best mills in South, and West, both white and colored work. Age 36, married, sober now employed as overseer. Good references. No. 4175.

WANT position as superintendent or would take overseer of carding and spinning. Many years' experience as superintendent and overseer and am well qualified in every respect. Best of references. No. 4171.

SUPERINTENDENT or carder and spinner desires position. Would take place as night superintendent in large mill. Prefer mill on plain work. Satisfactory references. No. 4177

WANT position as superintendent of mill or plain weaving or hosiery yarn. Am now 32 years of age and can give good references. Now employed as superintendent. No. 4178.

WANT position as superintendent or assistant superintendent in medium size mill. Would consider weave room in large mill. Best of references. No. 4179.

WANT position as spinner. Age 48. Have had 20 years' experience and can give excellent references. No. 4180.

WANT position as superintendent of finishing in yarn plant. Long experience in large Eastern mill and have excellent record of service. Fine references. No. 4181.

WANT position as carder or spinner, or box comber. Am specialist in combed yarn work and have had a long term of satisfactory service. Excellent references. No. 4182.

WANT position as shipping clerk. Four years' experience and can handle big job Now employed as shipping clerk. Gilt-edged references. No. 4183.

WANT position as carder and spinner. Now employed as such, but wish a larger place. Experienced, practical and reliable man. No. 4184.

WANT position as overseer finishing department, white or colored goods. Have had 16 years' experience in cloth room, 12 years as overseer on white and colored goods, wet and dry finish. Best of references. No. 4185.

WANT position as overseer spinning. Have had 12 years' experience as overseer and can furnish best of references. No. 4186.

WANT position as overseer weaving. Can handle either plain or fancy work both colored and white Now employed. First-class references. No. 4187.

WANT position as superintendent, carder, spinner or carder and spinner. Have acceptably filled overseer's position for long term of years. Best of references. No. 4188.

WANT position as master mechanic and engineer. Experienced and skilled mechanic of long experience. Best of references. No. 4189.

WANT position as overseer spinning. 12 years as overseer and 5 years as overhauler in spinning and twisting. Good references. Address No. 4190.

WANT position as superintendent, or overseer weaving or designer. Have specialized in fancy weaving and designing and can show samples that have proved business getting. Long record of satisfactory service in fine weaving plants. Good references. No. 4192.

WANT position as superintendent of small yarn mill or carder and spinner in larger mill Have had 20 years as overseer. Good references. No. 4191.

WANT position as superintendent or carder and spinner. Now employed but want better job. First-class references. No. 4193.

WANT position as superintendent. Prefer weaving mill. Practical man of long experience on great variety of fabrics. Good references No. 4194.

WANT position as overseer carding anywhere in South. Long experience and also graduate of I. C. S. Good references. No. 4197.

WANT position as overseer spinning, twisting or winding at not less than $40 weekly. Have had 25 years in the mill. 10 years as overseer, have run present room 3 years. Good references. No. 4195.

WANT position as overseer weaving. My experience has been as overseer in a number of large weave rooms and many kinds of goods. Excellent references. No. 4196.

WANT position as overseer of small weave room on plain goods. Am hustler for quality production and good manager of help. Good references. No. 4198.

WANT position as carder or spinner or superintendent. Now employed. Many years as both superintendent and overseer and am competent worker. Good references. No. 4199.

WANT position as carder. Have had 7 years as overseer and can give first-class references. No. 4200.

WANT position as superintendent of yarn or weave mill, or overseer weaving. Long experience in carding, spinning and weaving and winding and can give good references. No. 4201.

WANT position as superintendent of yarn mill. Prefer plant on tire fabrics. Experienced man of good habits and character and can give good references. No. 4202.

WANT position as overseer weaving on any kind of plain work; 12 years as overseer and have always been able to get the goods. Now employed but have good reasons for changing. Good references. No. 4203.

WANT position as spinner. Have held present job for over 6 years and made good record. Can get quality production at right price. Good references No. 4203.

WANT position as carder or carder and spinner. Am hustler for production and quality and know how to keep costs down. No. 4204.

WANT position as superintendent of yarn mill. Have had 12 years' experience. Have finished course in grading and stapling cotton. Know mill business thoroughly. Best of references as to character and ability. No. 4206.

WANT position as carder in small mill or second hand in large mill. At present employed by good mill but desire to change. Good references as to character and ability. No. 4207.

WANT position as carder. Thoroughly understand the carding process and have long term of experience in good mill. Best of references. No. 4208.

WANT position as superintendent. Experienced and reliable man who can get results. Experience gained in some of the best mills in the Carolinas. Excellent references. No. 4209.

WANT position as superintendent. Am competent executive and good manager of help, experienced in all departments of mill and man of good character and habits. Best of references. No. 4210.

WANT position as superintendent of medium sized yarn mill or assistant superintendent in large mill Prefer mill in Georgia, Alabama or Missippi. Long experience as overseer spinning. Have held present place as assistant superintendent for many years, making 4s to 40s single and ply cones, tubes, skeins and warps. References. No. 4111.

WANT position as superintendent or overseer carding and spinning. Am 41 years old, have had 20 years' experience as overseer and superintendent of mills in Georgia. Can give good references as to character and ability and can come at once. Good manager of help. No. 4113.

MASTER mechanic and chief engineer of extraordinary ability will consider proposition by March first. Fine machinist and mechanical engineer. Correspondence strictly confidential. No. 4114.

WANT position as superintendent of yarn mill, or would accept place as carder and spinner. Practical man of long experience who can get results and who can successfully manage help. References. No. 4423.

WANT position as overseer carding. Qualied by experience and training to handle card room in thoroughly practical and up-to-date manner. Good references. No. 4224.

WANT rposition as superintendent o overseer large weve room. Now employed as superintendent but would like better job. Have long record of successful service and references to show it. No. 4225.

WANT position as overseer weave room or cloth room. Now employed, but wish larger job. Experienced on many lines of goods, competent and reliable. References to show character and ability. No. 4226.

WANT position as assistant superintendent. Age 25, graduate of well-known textile school, three years' experience in all departments of mill, two years as manager of testing laboratory in large mill. Excellent reference. No. 4227.

WANT position as overseer weaving. My experience covers a long term of years in a number of first-class mills, making a wide variety of goods. Excellent references. No. 4228.

WANT position as carder and spinner, either or both. Age 35, have family. Experienced man who can give as reference some of the best mills in the South. No. 4231.

WANT position as overseer of weaving or superintendent of plain weaving mill. Long experience as both superintendent and overseer and can get excellent results. No. 4333.

WANT position as overseer carding. Now employed as night carder, but wish day job. Have had 20 years' experience in carding, spinning, spooling and warping, both white and colored work Can furnish good references. No. 4334

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